7

Index to Volume XLIX

240
2165
D

JULY TO DECEMBER

1922

Journal of Electricity and Western Industry

Published by McGraw-Hill Company of California
San Francisco, California

JAN 1923
LIBRARY

TK1
.E495

JAN 30 '23

EPH 2.9/BK.1/25

AUTHORS' INDEX

	Page
Agutter, J. J.	120
Atwood, H. S.	*143
Andrew, Edwin L.	324
Balzari, R. A.	315
Bartlett, John T.	61, 213
Beckman, J. W.	82
Bernston, Carl	83
Bibbins, Tracy E.	93, 196
Bishop, S. W.	101, 235
Booth, P. H.	83
*Brown, Claude C.	15
Bullard, J. E.	63, 253, 402
*Cary, Harold	361
*Chantier, Thos. F.	357
Chatfield, Rey E.	241, *452
Childs, A. W.	*404
Chowen, W. H.	7
Colville, J. R.	*44
Conrad, E. S.	159, *372
Coughlin, William	159
Cowdrick, Edward S.	*171
Crawford, W. H.	121
Cummings, M. L., Jr.	*336
DeKay, Geo. H., Jr.	*12, 89, 209
Denny, R. C.	*244, *317
Dolge, Wm.	354
Dorward, D., Jr.	58
Ducker, P. H.	*243
Emerson, R. G.	*137
Frost, A. M.	196
Gallison, Norman S.	*123, *441
Goodwin, Wm. L.	434
Graham, K. L.	*163
Greenawalt, J. F.	45
Harris, D. E.	120
Herlitz, Ivar	83
Hicks, W. Wesley	121
Houser, J. David	*47
Hubbell, R. H.	9
Jakobsen, B. F.	159
Jollyman, J. P.	*131
Kincaid, E. A.	54, 94, 160, 206, 246
Koontz, J. A.	159
Kramer, Elbert	121
Leurey, Louis F.	*19, *59, *97, *135, *173, 211, 249, 290, *326, *366, 406, *450
Lightbody, James	6
Lincoln, Irving B.	*23
Lloyd, E. W.	435
MacMullen, T. D.	121
Mathews, Charles	*447
McBryde, Warren H.	*237
McCammon, F. F.	44
McElroy, R. B.	*199
Merrick, C. B.	167
Moore, L. J.	91
Nanry, William H.	*56
Osier, Joe	139, 215, 251, 295, 331, 369, 412, 454
Parry, P. M.	7
Parsons, A. T.	*203
Prussia, R. S.	*163
Reader, W. E.	82
Ready, Lester S.	*50
Rickard, T. A.	314
Shepard, W. M.	*397
*Sibley, Robert	*273, 393
Steinmetz, Charles P.	203
Strauch, A.	121
Tachella, A. A.	*134
Tenney, George C.	*437
Turpin, M. C.	215
Watson, Frank Whalley	*85
Wolff, D. A.	*370
Wooton, Paul	53, 169

Index to Volume XLIX

Illustrated articles are designated by an asterisk (*), editorials by a dagger (†).

A

	Page
†A Fundamental Executive Failure	39
A.A.E.—	
Annual Convention, Salt Lake	29
Nat'l Convention, Portland, 1925	27
University Chapter Campaigns for Membership	339
A.I.E.E.—	
Convention Plans, Vancouver	69
Denver Section Ladies Meeting	465
Harris J. Ryan Suggested as Head	145
Pacific Coast Meeting	181
†Prof. Ryan to Have No Opponent	310
Schedules Meetings for Next Year	379
†Western President for	155
Am. Soc. C. E.—	
Fall Session, San Francisco	299
Meets in San Francisco	221
Accounting, Uniform, Adopted by Idaho Utilities Commission	64
†Accounting, Unified Cost, for Power Plants	350
†Accounting for Electric Utilities—Uniform System	117
Accounting System—Exception Taken to Article on Munic. Util.—by Wm. Dolge	354
†Accounting Tangle Straightened Out	78
Accurate Knowledge Needed Before Elec. Heating Is Installed in Home—by Elbert Kramer	120
*Activities of the West	24, 64, 102, 140, 178, 216, 254
Ad Convention, Spokane	69
Advanced Laboratory Practice in Electricity and Magnetism—Book Review	464
*Advantageous Publicity Through Use of Flood Lights	406
†Advertising, Paid, Has No Place in House Organs	350
Advertising, Window Display and—by Joe Osier	139
*Advertising and the Electrical Dealer—by Edwin L. Andrew	324
Advertising Idea Used by Selling Organization, New	371
Advice to Tea Drinkers and Price Shavers—by Joe Osier	331
*After the Trade Show Have a Show of Your Own	251
*Airplane Used as Modern Delivery Service Aid	293
Alaskan Oil, Development Started in	80
Alaskan R.R. Makes Prospecting Easy for Stampeding Miners	140
*Alhambra's Electrical Home—by Geo. C. Tenney	437
*All Sardines Do Not Come in Cans	294
Amalgamation of Important Sugar Companies	81
Amended Application for Trinity River Project Is Filed	335
†Amendment, Socialistic, Death Knell Is Sounded	192
†American Construction Council to Unite Construction Industry	40
American Electrochemical Society to Discuss Industrial Elec. Heating, Montreal	221
†American Plan, Indust. Program Under	231
†American Principles, Attorney-General Daugherty's Declaration of	192
American River Power & Water Co. Files Applicat. to Develop Power	218
*Analysis of Customer Ownership of Western Power Companies	320
†Anent Habit of Assimilating Food Prior to Organization	231
Anvil Coarse, The—by Joe Osier	454
*Appliance Load, Building An—by A. W. Childs	404
Appliance Repairs, Denver Store Gives Labor Free	177
†Appliances, Electrical, Evolution of Merchandising	310
*Appliances, Electrical, Increasing Convenience of—by D. A. Wolff	370
Appliances, Heavy Elec., Displayed, S. F.	377
Application to Develop Power in Eastern Company	218
Appropriation of Logan River Withheld One Year	334
Are You Allowing Unscrupulous Competitors to Educate Your Customers?—by E. S. Conrad	159
*Are We Getting an Adequate Return for Our Municipal Taxes?—by Wm. H. Nanry	56
Are You Throwing Stones in Your Well—by Joe Osier	295
Arizona—	
Engineers Report Favorable on S. R. V. W. U. A. Pwr. Development	220
Asbestos Shingles, Mountain States Machinery Co. Awarded Contract for	331
Associated Contractors' Convention, L.A.	301
Association Formed by Vancouver Small Residence Wiremen	219
Association Is Formed by Pueblo Elec. Men, New	379
Assn. Representatives Stir Interest in Cooperation, B. C.	220
Atlas Educational Film Co. Makes Home Electric Film	?
†Attorney-General Daugherty's Declaration of American Principles	192
†Automatic and Remote Controlled Generating Stations, Development	192
*Automatic Boiler Control Results in Economies	19
*Automatic Machinery Promotes Health in Industrial Plant	173
Automatic Series Cutout, States Co. Announces	333
Automatic Substation Will be Erected in Vancouver	462
*Automobile Location System—by P. H. Ducker	243
Auxiliary Steam Plant Will Be Built at Salem, Ore.	28
Available Water Supply Topic of Report to Commission	418

B

	Page
B. C. Electric Railway Co.—	
Elec. Poet Discovered	373
Erects Autom. Substation	462
Generator at Stave Lake	374
Starts Work on Stave Lake	28
To Sell Current to West Vancouver	376
*Bake Oven, Electric, Installed, Salt Lake Baking Co., Portland, Orders Elec. Trucks	26 417
Ballot, Beneficial Election, as a Prospect Getter—by J. T. Bartlett	213
†Bankers, Investment, Extended Gracious Manifestation of Goodwill	311
†Banking, Cooperative Idea in	40
Banking Interest, S. W., Coordination	233
Banks, New, Will Stabilize Rural Credits	4
Banks Merge, Los Angeles	24
Banquet Introduces New Range to N. W. Dealers	141
Banquet on S.S. H. F. Alexander, Seattle Club	465
Basic Iron Industry Made Possible by Electric Furnace Need of Western Industry—by J. W. Beckman	82
Basic Steel Industry Planned for West	42
Beaverhead Transmission Co. Files Articles of Incorporation	216
Bend Water, L. & P. Co. Applies for Water Permit	376
Beneficial Election Ballot as a Prospect Getter—by J. T. Bartlett	213
Better Business Yours If You Go and Get It—by M. C. Turpin	215
*Benefits Follow B. C. Home Electric—by Rey E. Chatfield	452
Better Contact with the Public Essential for Utilities	59
*Big Creek Development Motors	65
*Better Homes Exposition Features Elec. Home, Oakland	458
Bibliography of Colorado River Has Been Completed	462
*Boiler Control, Automatic, Results in Economies	19
Boiler Service, Standby—Electricity Removes Necessity for	60
Boise, Idaho—	
†Convention of N. W. Elec. Lt. & Power Ass'n	2
*N. W. Elec. Lt. & Pr. Convention	16
Boise-Payette Irrigation—Work Resumed	103
Books and Bulletins	28, 220, 258, 300, 418, 464
Booth Kelly Lumber Co. Starts Construction	335
Bridge Over Carquinez Straits Protested	68
Brigham City, Utah—	
Elec. Range Demonstration	371
Britannia M. & S. Co. to Buy Elec. Pwr.	375

EPH 2-9-28 W 1.25

Page

British Columbia—
Assn. Representatives Stir Cooperation Interest ... 220
*Benefits Follow Home Electric ... 452
Customers Reaping Rich Harvest from Cut-rate Elec. Work—by Jas. Lightbody ... 6
Pt. Grey Will Install Lt. Plant ... 296
Pulp & Paper Mill Starting ... 301
Broadcasting, British, Govt. to Control ... 270
Broadcasting Station Planned for Portland Chamber of Commerce ... 339
Broadest Distribution Channels Best for Growth of Entire Industry ... 234
Bryan Marsh Div., Natl. Lamp Wks. Appoints H. W. Coombs, Denver ... 333
Buffalo Rapids to Have Hydroelec. Plant 216
*Builders of the West ... 8, 46, 84, 122
Hockenbeamer, August F. ... 122
Kerr, Dr. W. J. ... 46
McBryde, Warren H. ... 84
Smith, Francis Marion ... 8
Building, Seattle, Plan to Lessen Restrictions on ... 258
*Building a Rural Load—by W. M. Shepard 397
Building Activity Demands Much Electric Equipment ... 418
*Building An Appliance Load—by A. W. Childs ... 404
Building Permits, Denver, Show Marked Increase for 1922 ... 144
*Building to Suit the Requirements of the Jobber ... 373
*Bungalow, Elec., at Cal. Beach Resort ... 99
Burned Lands, Government to Reforest ... 43
Burning Liquid Fuel—Review ... 258
*Business, A Few Suggestions for More and Better ... 176
Business, Better, Yours If You Go and Get It—by M. C. Turpin ... 215
Business Getting Ideas from So. Calif. ... 175
*Business in Show Window Illumination ... 99
Business Outlook in Western Market Centers ... 33, 73, 111, 149, 185, 225, 263
Butte, Mont.—
Beaverhead Transmission Co. Incorporates ... 216

C

California—
*Contr.-Dealers Hold Convention ... 180
Contr.-Dealers Plan Meeting, Santa Cruz ... 107
†Court Upholds Power of Utility Commission ... 310
*Indoor Drying of Fruits Eliminates Weather Hazard ... 450
Irrigation Map Ready ... 26
Power on Farm Display at Fair ... 258
R.R. Comm. Prepares New Map ... 141
Railroads Lose Protest Against King Tax Bill ... 64
Rate Reductions Save Twenty Millions a Year ... 254
Water Applications Announced ... 375
California—Recognizes Broader Merchandising Channels ... 179
California & Hawaiian Sugar Refining Corp.—
*Chance for Self Education Increases Efficiency ... 135
*Installs Spec. Motors ... 326
*Warehouse ... 56
*California Cordage Co. to Build Mill ... 300
Calif. Counties Toured by Investigation Board of Water Resources ... 257
*California Editors Visit Pit River Development ... 68
California Electrical Cooperative Campaign—
Announces Xmas Plans ... 464
New Officers Elected ... 107
To Increase No. Elec. Homes ... 378
*California History Depicted at Sacramento ... 62
California Industries Exposition Aid to Electrical Men ... 377
California Oregon Power Company, The—
*Building a Rural Load—by W. M. Shepard ... 397
*Copco Plant, Klamath River ... 316
Files Application for Water ... 418
*Gold Ray Dam and Power House ... 396
Granted Permit for Project, Klamath River ... 301
*Opens Copco Plant ... 375
Transmiss'n Line Nearing Completion 334
*Visitors at Opening of Copco Plant 415
California State Assn. Elec. Contr-Dealers, Convention, Santa Cruz ... 145
California State R.R. Commission—
Approval Given to Land Deeds ... 300
†Court Upholds Power in Decision ... 310
†Engineering Qualifications Not Only Ones for Commissioners ... 390
Makes Important Ruling ... 105
Orders Elimination of Hazardous Conditions ... 335
P. G. & E. Valuation Case ... 333
Public Utility Rate Contracts Discussed ... 461
Rules on Discontinuance of Service ... 313

Page

California Town Features Electrical Restroom ... 177
California Voters Defeat Water and Power Act ... 374
*California's Industrial and Agricultural Growth, Insuring—by Norman S. Gallison ... 123
Call Issued for Fall Conference of Elec. Cooperative Leagues ... 66
*Camp, Mountain, Modern Elec. Conveniences—by Chas. Mathews ... 447
*Camp Curry, Yosemite, Electrical Service 327
*Camp Curry Elec. Conveniences—by Chas. Mathews ... 447
Canadian Railway, N. Y. Syndicate Makes Bid ... 460
Canby, Ore., Offers to Buy Elec. Co. ... 178
Canby, Ore., Purchases Distributing System of Molalla Elec. Co. ... 257
Carberry, Roy L.—Tour of Investigation 300
†Carbon Tetrachloride for Extinguishing Electrical Fires ... 117
*Cargo Conveyor, Seattle ... 98
Cargo of Spruce Shipped from Alaska to N. Y. ... 257
Carlton, A. E., Purchases Palisade Lt. & Power Co. ... 102
Carquinez Straits Bridge Protested ... 68
*Cascade Fixture Co. Moves to New Quarters, Seattle ... 66
Case of Jerry the Curbstoner—by Rey Chatfield ... 241
Casper, Wyoming—New Mill and Elev. Company ... 103
Cave Electrically Lighted, Utah ... 26
Cement Co., Oregon, Plans Development ... 335
*Central and Southern Pacific Dissolution 4
*Central Fire Alarm Station, S. F. ... 257
Central Mendocino Power Co. to Sell Stock ... 68
Central Station, the Dealer and Cooperation—by J. E. Bullard ... 253
†Central Station Merchandising ... 349
Central Station Will Provide Energy for R.R. System, Denver, Colo. ... 335
Central Pacific Southern Pacific Controversy ... 118
*Central Station Employees' Vacation Camp ... 142
*Centralized Control Essential for Efficiency ... 59
Chain Store, Relation to Manufacturer and Retailer—by E. A. Kincaid ... 206
Chambers of Commerce Oppose Water and Power Act ... 179
*Chance for Self Education Increases Efficiency ... 135
†Chance to Vote for Higher Taxes, A ... 79
*Cheap Competition, There Is No Such Thing as—by E. S. Conrad ... 372
*Chemical Testing Important in Sugar Refining ... 98
Chile—Railway Electrification ... 88
China—World's Largest Radio Station to Be Constructed ... 258
*Choosing the Most Advantageous Store Location—by Irving B. Lincoln ... 23
Christmas—
Advertising Campaign, Denver League ... 465
Coop. Campaign Plans ... 464
Crowds, Handling ... 413
Motion in Window, Drawing Card ... 413
Plans by Denver Elec. Interests ... 378
Presents for the Man ... 413
*S. E. D. Prepares Sales Aids ... 368
Seattle Decorated for ... 375
Smell an Element in Psychology ... 409
*Start Your Selling Early—by Thos. F. Chantler ... 357
*Universal Toy for Window Display—by Harold Cary ... 361
Vancouver Campaign Preparations ... 379
Christmas Opening Schedule for New Don Pedro Dam ... 415
City of L. A. to Enlarge San Francisquito Plant ... 107
City of Mexico Will Have More Elec. Pwr. ... 334
Cities Refuse Power Offer ... 178
Civil Engineers to Hold National Meeting in San Francisco ... 221
Clackamas River Project Will Be Started Immediately ... 301
Coal Deposits, Utah, Contract Let for Tunnel to ... 254
Coal Freight Rates Reduced, Utah to San Joaquin Valley ... 258
Coal Mines, Open Shop, Washington ... 157
Coal Operations in the West Are Increasing ... 393
*Cocoanut Oil Industry in N. W., Five Million Dollar—by F. W. Watson ... 85
Code of Ethics for Practice of Engineering ... 252
Coffin, C. A., Fund Will Reward Service to Industry ... 463
†College Man, Making Use of the ... 2
Colorado, Business Flourishing, State League Report ... 417
Colorado Central Station Will Provide Energy for R. R. System ... 335

Page

Colorado Commission Meeting Postponed to Nov. 5 ... 181
*Colorado Mine and Steel Workers, Vocational Training—by E. S. Cowdrick ... 171
Colorado River—
Bibliography Completed ... 462
Commission Hearing, Nov. 9 ... 338
Commission Meeting Postponed ... 181
Commission to Meet Aug. 1 ... 65
Compact Means Much to West ... 432
Conference for Final Agreement ... 374
†Conference Vital to Western Development ... 391
Diamond Creek Site for Development ... 296
Final Agreement Drawn by Comm ... 414
Final Conference of Commission ... 42
Hearing Postponed, Santa Fe ... 102
Pescadero Dam Diverts Overflow ... 300
†Signing of Compact First Step in Development ... 430
Testimony of Secretary Hooover ... 25
Colo. Supreme Court Upholds Moffat Tunnel Law ... 460
Columbia River Project—Senator Poindexter's Bill Passes ... 140
Colorado Seeks Relief From Court Ruling 194
Commends Article on Improving Efficiency of Personnel Relations in Industry—by W. H. Crawford ... 121
Commerce Bureau Extends Service by Radio ... 312
Commercial Club, Salt Lake, Organizes Industrial Dept. ... 142
Commission, Utah, Denies Special Rate for Elec. Furnace ... 64
Commission Grants Permit for Power Develop. in Calif. ... 301
Commission Orders Co. to Reduce Rates, Idaho ... 416
Commission Orders Elimination of Hazardous Conditions ... 335
*Commission Regulation—How Elec. Rates Are Fixed Under—by Lester S. Ready ... 50
Commission Rules on Discontinuance of Service ... 313
†Commissioners, Utility, Engineering Qualifications Not Only Ones ... 390
Community Stability, Home Ownership and ... 118
†Competent Service to the Public—Ultimate Destiny of the Industry ... 116
†Competing With the Government in the Merchandising Field ... 116
Complaints, Power Company—by C. B. Merrick ... 167
Compromise Offered in Denver Gas Rebate Case by Co. ... 64
*Concentrated Motor Control Increases Efficiency ... 174
Concrete Conduit Will Be Built in So. Calif. ... 464
*Concrete Models Show Types and Costs of Dams ... 28
*Concrete Structures, Manufacturing Methods and ... 97
Condit Electrical Mfg. Co. Issues Bulletins ... 331
Conditions in Twelfth Federal Reserve District ... 106
Conduit, Concrete, Will Be Built in So. Calif. ... 464
Conference of Elec. Coop. Leagues, Call Issued for Fall ... 66
Connecting Line to Be Built by Idaho R. R. Co. ... 417
Consolidation of Reno P., L. & W. Co. and Truckee River G. E. Co. ... 66
Constitutionality of Act Providing Tax Upheld, Salt Lake City ... 68
†Construction Council, American, to Unite Construction Industry ... 40
Construction News ... 306, 344, 384, 424, 470
Construction News and Industrial Development ... 34, 74, 112, 150, 186, 226, 264
Construction of Mills and Town Started by Lumbermen ... 418
†Construction Program, Power Co., Anticipates Future Growth ... 268
Consulting Engineers Prevent Construction Waste ... 249
Contact With the Public Essential for Utilities, Better ... 59
Contest, Winners of Service Photo ... 297
Contract for Tunnnel to Utah Coal Deposits Let ... 254
Contractor, Conditions of, Cooperation Needed to Improve—by W. E. Reader ... 82
Contractor-Dealers—
Manual of Estimating Prepared by Natl. Assn. ... 293
§Contribution to Electrical Service ... 287
Convention Postponed, So. Idaho Assn 69
Convention Program, Santa Cruz ... 145
*Hold Convention, Calif. ... 180
Jobbers Discuss Situation ... 178
Meeting, Santa Cruz ... 107
Reorganize, Salt Lake City ... 69
Stage Smoker, Denver ... 465
To Hold National Convention ... 259
Utah, Reorganize ... 339

Page

†Contractor-Dealers and Cooperative Campaign Take Important Step..... 154
†Contractors' Assn., Curbstone, Organizing 230
Contractors' Convention, Associated..... 301
*Control, Centralized, Essential for Efficiency 59
*Convenience of Elec. Appliances, Increasing—by D. A. Wolff..... 370
†Convention That Means Much to the West, Investment Bankers' Assn..... 193
Conventions—
A. A. E., Salt Lake City..... 29
A. I. E. E., Vancouver..... 69
Ad, Spokane, 1923..... 69
American Electrochemical Society, Montreal 221
Am. Soc. C. E., San Francisco.....221, 299
Assn. Contrs., L. A,..... 301
Assn. Island Meeeting in Retrospect —by R. A. Balzari..... 315
*Calif. Contr.-Dealers, Santa Cruz..... 180
Contr.-Dealer, Santa Cruz..... 145
Elec. Supply Jobbers' Assn., Cleveland 465
Elec. Supply Jobbers, Coronado..... 461
†Investment Bankers' Means Much to the West..... 193
Natl. Assn. Elec. Contrs.-Dealers, Cincinnati 259
*N. E. L. A., Glenwood Springs, Rocky Mtn. Div..... 256
N. E. L. A., New York, 1923..... 254
N. W. El. Lt. & Pr. Assn., Boise .....†1, *16
N. W. Elec. Lt. & Pwr. Assn., Spokane 465
Pacific Coast Elec. Assn., Del Monte 419
Pac. N. W. Merchants Plannned..... 69
Rocky Mtn. N. E. L. A., Glenwood Springs 145
Pacific Power & Light Co., Hood River, Ore..... 339
S. E. D., Assn. Island.....157, 231, 301
So. Idaho Assn. Elec. Contr.-Dealers Postponed..... 69
So. Idaho Elec. Contr.-Dealers, Hailey 259
*Conveyor, Cargo, Seattle..... 98
*Cooking, Elec., and Heating Appliances in Yosemite Valley—by P. H. Booth..... 82
*Cooking Electric, Cooperating to Sell the Idea 413
*Cooking School, Elec., Salt Lake..... 175
*Cooperating to Sell the Idea of Electric Cooking 413
Cooperation, the Central Station, the Dealer and—by J. E. Bullard..... 253
Cooperation Between Branches of Industry Needed to Improve Conditions of Contractor—by W. E. Reader..... 82
†Cooperative Campaign and Contr.-Dealers Take Important Step..... 154
†Cooperative Idea in Banking..... 40
Cooperative League Extends Activities in Colorado 67
Cooperative Leagues—Call Issued for Fall Conference 66
Coordination of Banking Interest, S. W... 233
*Copco Opening, Northwestern Visitors..... 415
*Copco Plant, Klamath River..... 316
*Copco Plant Opened..... 375
Copper Co.'s Mill Reopened..... 464
Cordage Mill, Cotton, to Be Built in California 300
*Corrosion as a Major Source of Waste in Industry, Fighting—by R. H. Hubbell.. 9
†Cost Accounting, Unified, for Privately Owned and Municipally Owned Power Plants 350
Cost of Living Decreased—Public Will Expect Lower Utility Rates—by J. F. Greenawalt 45
*Cost Record, Low, Everett Elec. Home..... 143
*Cotton Cordage Mill to Be Built in Calif. 300
Court Decides License Law for Electricians, Olympia..... 215
†Court Upholds Power of Utility Commission in California Decision..... 310
Crab Classified, The—by Joe Osier..... 412
Crater, Kilauea, Progress Made in Boring 218
Credits, Rural, New Banks Will Stabilize 4
*Cruise of the Electra..... 411
†Curbstone Contractors' Assn., Organizing 230
Curbstone Jerry, The—by Rey Chatfield.. 241
Current Comment.....270, 312, 352, 392, 432
*Customer Ownership Data..... 322
*Customer Ownership of Western Power Companies, Analysis..... 320
Customers Reaping Rich Harvest From Cut Rate Elec. Work in B. C.—by James Lightbody..... 6

D

Dam and Reservoir Being Built, Carey, Ida. 376
*Dams—Concrete Models Show Types and Costs 28
Data on Customer Ownership..... 322
†Daugherty's Declaration of American Principles 192
Davis, Laurence W., on Western Trip..... 69

Page

Daylight Saving Plan Favored by Portland Chamber of Commerce..... 64
*Dealer, Suburban, Can Compete With City Store..... 214
†Death Knell of Socialistic Amendment Is Sounded 192
*Delivery Service Aid, Airplane Used as Modern 293
Delta Elec. & Water Co. Withdraws Application for Permit..... 465
†Demagogue Held to Be Nature's Act to Keep Before Us Our Own Absurdities.. 311
Denver, Colo.—
Bldg. Permits Show Increase..... 144
Bryan Marsh Div. Natl. Lamp Wks. Appoints H. W. Coombs..... 333
Christmas Plans, Elec. Coop. League 378
Compromise Offered in Gas Rebate Case 64
Contr.-Dealers Stage Smoker..... 465
Coop. League Aids Xmas Ad. Campaigns 465
Coop League Extends Activities..... 67
Coop. League Holds Picnic..... 180
Coop. League Plans Announced..... 144
*Cooperative League to Enlarge Activities 116
Denver G. & E. Co. Will Provide Power for R. R. Co..... 335
Elec. Coop. League Elects Officers..... 419
Elec. Coop. League Outing..... 256
Elec. Coop. League Will Increase Activities 271
Hendrie & Bolthoff Radio Station..... 331
Industrial Exposition, Feb. 5..... 374
Jobber Uses Sales Letters to Advantage 21
Labor Free on Appliance Repairs..... 177
*Largest Residential Store..... 213
League Proposes Natl. Elec. Gathering 107
Meeting for L. W. Davis & K. A. McIntyre 181
Mountain States Mach. Co. Awarded Contract for Asbestos Shingles..... 331
Paper and Pulp Mill Under Construction 216
Radio Dealers' Instruction Conference 419
Radio Dealers Organize..... 338
Radio Jobbers Unite to Form New Assn. 379
Saxaphone Band of Light Co., Provides Programs..... 301
Supreme Court Decides on Right to Grant Franchises..... 416
To Experiment With Gas for Home Heating Fuel..... 296
U. S. Reclamation Service Office to Remain 24
Denver & Rio Grande R. R. Expenditures 216
Denver Gas & Electric Co.—Compromise Offered in Rebate Case..... 64
Denver Gas & Elec. Light Co.—Saxaphone Band Gives Programs..... 301
Dept. of Conservation and Develop. Issues Water Permits, Washington..... 463
†Depreciation Funds as a Public Trust..... 3
Deschutes River, Power Project Permits Issued 335
Destruction From Elec. Causes, Insurance Against 211
†Development of Automatic and Remote Controlled Generating Stations..... 192
†Development of High Voltage Transmission, New Economic Triumph..... 269
Development Society Fosters Successful Conference 301
Development Started in Alaskan Oil..... 80
Developments in Federal Water Power Act Administration—by Paul Wooton.... 169
Diamond Creek Site for Power Develop... 296
Diamond Drill Used to Determine Character of Base Rock..... 416
*Diesel Engine in Isolated Districts of the Southwest—by A. A. Tachella..... 134
Dime—What It Will Do..... 205
Discussion 314, 354, 393, 434
*Display Room, Making the Warehouse Part of..... 329
*Dissolution of Central and Southern Pacific 4
Distribution Channels, Broadest, Best for Growth of Entire Industry..... 234
Distribution System—Function of Jobbber in—by E. A. Kincaid..... 160
*Do the Power Companies Give Adequate Service? 277
*Do You Devote as Much Time to Your Men as Your Machinery?—by J. David Houser 47
Dock Equipment, Electric, Vancouver, B. C..... 219
†Doctors of Electricity..... 153
Don Pedro Dam—
Christmas Opening Scheduled..... 415
*Manufacturing Methods and Concrete Structures 97
Wholesale Power Not to Be Sold..... 464
Don Pedro Power Not to Be Sold Wholesale to Power Co..... 64

Page

Downstream Users on Interstate Rivers, Rights Sustained—by Paul Wooton..... 53
Drill, Diamond, Used to Determine Character of Base Rock..... 416
*Drying of Calif. Fruits, Indoor, Eliminates Weather Hazard..... 450
†Duplication of Electric Service, Economic Waste Attendant on..... 351
Durant Motor Co., Oakland—Million Dollar Factory Starts Operations..... 66

E

*Early California History Depicted at Sacramento 62
*Early Forest Fire Sweeps Northwest..... 5
†Economic Conditions Change But Human Nature Remains the Same..... 41
Economic Factors Which Determine Power Expenditures—by L. J. Moore— 91
†Economic Triumph in Development of High Voltage Transmission, New..... 269
†Economic Waste Attendant on Duplication of Electric Service..... 351
Edison Elec. Appliance Co. Introduces New Range, Portland..... 141
Editors Guests of Idaho Pwr. Co. for Three Days..... 464
*Editors of California Visit P. G. & E. Development on Pit River..... 68
Education Increases Efficiency, Chance for Self 135
*Effective Service From Your Power Room —by Claude C. Brown..... 14
Effects of Low Power Factor, The..... 364
Eighty Mile Transmission Line Being Constructed, San Joaquin L. & P. Corp. 417
Election Ballot, Beneficial, as Prospect Getter—by John T. Bartlett..... 213
*Electra, Cruise of the..... 411
Electragists Are Their Worst Competitors, Laundryowners Feel—by S. W. Bishop 235
*Electric Bake Oven Installed, Salt Lake.. 26
*Electric Bungalow Erected at Cal. Beach Resort 99
Electric Club, L. A., Addressed by Dr. Haywood 419
Electric Club, Oakland, Holds Successful Meeting 259
Electric Club, Seattle, Elects Officers..... 221
Electric Club, Seattle, Promoting Elec. Idea—by J. J. Agutter..... 120
Electric Club, Tacoma, Organized..... 180
*Electric Club Picnic, Seattle..... 141
*Electric Cooking, Cooperating to Sell the Idea of..... 413
*Electric Cooking and Heating Appliances in Yosemite—by P. H. Booth..... 82
*Electric Cooking School, Salt Lake..... 175
Electric Dock Equipment, Vancouver, B. C..... 219
Electric Furnace—Utah Commission Denies Special Rate for..... 64
Electric Furnaces Save Freight and Promote Local Industry..... 59
Electric Handbook, New—Review..... 300
Electric Heating, Industrial, to Be Discussed by Society..... 221
†Electric Heating, Need for More Attention to..... 40
Electric Home to Be Featured in New Motion Picture..... 331
†Electric House Heating a Western Reality 3
Electric Lines, Pass System Experiment.. 156
Electric Logging, Western Mills Prove Success 194
Electric Power Club Issues New Handbook 300
Electric Railways, Proposed Act Would Relieve 195
†Electric Range Costs Justified..... 2
*Electric Rates, How Fixed Under Commission Regulation—by Lester S. Ready 50
Electric Rates, Lower, Vancouver, B. C... 415
Electric Rates in Japan Reduced..... 392
Electric Transients—Book Review..... 418
*Electric Truck, Long Life and Low Upkeep Makes Good Investment..... 450
†Electric Truck as a Western Possibility.. 79
*Electric Truck Proves Its Utility..... 366
Electric Week Plans Nearing Completion, Seattle 217
†Electric Utilities—Uniform System of Accounting for..... 117
Electric Yarders and Loaders Installed.. 66
†Electrical Appliances, Evolution of Merchandising 310
Electrical Assn. Executive Committee to Meet, Del Monte..... 419
Electrical Assns. Active in Portland Territory 259
Electrical Causes, Insurance Against Destruction From..... 211
Electrical Contractor—Honesty, Ethics and the—by J. E. Bullard..... 63

Page

Electrical Coop. League—
Extends Activities in Colorado..... 67
Holds Picnic, Denver..... 180
Plans Announced, Denver..... 144
Proposes Natl. Elec. Gathering, Denver 107
To Enlarge Activities, Denver..... 116
Will Increase Its Activities, Denver.. 271
Elec. Coop. Leagues—Call Issued for Fall Conference, S. E. D..... 66
*Electrical Dealer, Advertising and the—by Edwin L. Andrew..... 324
*Electrical Dealer, Helping Sell His Merchandise 408
Electrical Engineers Schedule Meetings for Next Year..... 379
Elec. Equipment, Business Activity Demands Much, L. A..... 418
Electrical Equipment, Industrial Heating Growing Field for Application of—by F. F. McCammon..... 44
†Electrical Equipping of Public School Buildings 390
†Electrical Exposition, Intermountain..... 79
*Electrical Exposition, Salt Lake City..... 336
Electrical Exposition, Tacoma, Second..... 178
Electrical Features of Pump. Installations, Supervision by Pwr. Co.—by A. M. Frost..... 196
*Electrical Exposition Merchandising Aid, Tacoma 332
*Electrical Home, Model, Spokane—by R. B. McElroy..... 199
*Electrical Home for the Electrical Man, The—by Norman S. Gallison..... 441
†Electrical Home Idea—Spread Is Evidence of Its Value..... 430
†Electrical Home Idea to Receive New Impetus 154
Electrical Home Owner—Taking Into Partnership 453
Elec. Home Story in a New Way—by S. W. Bishop..... 101
Electrical Homes—
*Better Homes Exhibition, Oakland..... 436
*Better Homes Exposition, Oakland.... 458
*British Columbia—by R. E. Chatfield 452
*Calexico—Taking Home Owner Into Partnership 453
*Everett, Sets Low Cost Record—by H. S. Atwood..... 143
*Exhibiting in Small Community, Stockton 456
*Exposition Booklet Published, S.E.D. 328
†For Man of Average Income, Salt Lake City..... 154
*Getting Crowds to Visit—by R. G. Emerson 137
Heerman, R. E., Alhambra..... 437
*Nelson, Nels H., Fresno..... 252
Salt Lake City, No. 2..... 105
Salt Lake City, Second Planned..... 68
*Salt Lake City, Successful.....138, 139
*San Francisco Has Many New..... 140
*S. E. D. Issues Monograph..... 106
S. E. D. Will Issue New Booklet on.. 28
*Seattle, Two Simultaneously..... 457
Seattle Will Have Two in Sept..... 141
Spokane, Finished..... 27
Vancouver, Opens..... 144
*Wishon A. E.—by N. S. Gallison..... 442
Electrical Idea, Elec. Club, Seattle, Promoting—by J. J. Agutter..... 120
*Electrical Jobber's Service..... 285
Electrical Kitchen Is Household Dream.. 248
Electrical Laboratory Proposed for Industrial Problems..... 20
Electrical Leagues to Hold Conference, Local 157
*Electrical Manufacturer's Point of View —Service 283
*Electrical Men Return From Trip Down Salmon River..... 411, 412
Electrical Men to Venture Into Idaho Wilds in Game Quest..... 221
Electrical Merchandise, W. L. Goodwin Presents Views on Retailing..... 434
†Electrical Merchandising, Putting on Its Proper Plane..... 154
Electrical Poet Is Discovered in Vancouver Co..... 373
Electrical Rest-room, Calif. Town Features 177
*Electrical Society Prepares Christmas Sales Aids..... 368
Elec. Supply Jobbers' Assn. Convention, Cleveland, O..... 465
Electrical Supply Jobbers Meet at Coronado 461
Electrical Week, Seattle Mayor Proclaims 233
Electrical Week to Be Celebrated by Seattle Electric Club..... 181
Electrically Lighted Cave, Utah..... 26
Electricians, License Law Decided, Olympia 215
†Electricity, Doctors of..... 153
Electricity, Material Waste Prevented by 212
Electricity, Static—Precautionary Measures Protect Against..... 136
*Electricity for Broiling and Roasting in the Modern Restaurant..... 367
*Electricity in Industry—by Louis F. Leurey 326, 366, 406, 450

Page

*Electricity in Modern Hotel Service..... 327
Electricity in Recent Accident, Freakish Action—by Wm. Coughlin..... 159
Electricity Removes Necessity of Standby Boiler Service..... 60
*Electricity Used to Kill Flies..... 243
*Electricity's Service to Industry—by Louis F. Leurey..... 290
Electrification of Great Northern Ry. Announced 24
Electrification of Swiss Railroad..... 440
Electrified Mill, Long-Bell Co..... 140
†Electrochemical Development, German Patents and..... 230
Elements of Radio Telephony—Book Review 258
*Eliminating the Waste in Industry—by Louis F. Leurey.....
.....19, 59, 97, 135, 173, 211, 249
Eliminating the Waste in Industry Meets With Gratifying Response From Utah Reader—by P. M. Parry..... 7
Employees Quit Their Jobs, Major Reasons Why—by Geo. H. DeKay, Jr..... 89
Employees to Receive Benefits of Group Insurance 297
†Encouragement and Assistance Needed in Water Power Development..... 430
†Encouraging Home Repair Work..... 155
Endorses Editorial on Electric heating—by W. Wesley Hicks..... 121
Engineer, S. F., Invents X-Ray Meas. Device 460
Engineer Recommends Enlarging Morena Spillway 300
†Engineering Qualifications Not the Only Ones for Utility Commissioners..... 390
Engineering Service Bureau Plans for S. F. District..... 142
†Engineering Society Development, National, Solidarity..... 269
Engineers, Consulting, Prevent Construction Waste..... 249
Engineers, Valuation, Needed by Bureau of Internal Revenue..... 216
Engineers of Portland Announce Meetings for Coming Year..... 339
Engineers' Club, S. F., Celebration..... 379
Estimating Manual Prepared for Assn. Men 293
Ethics, Code, for Practice of Engineering 232
Eugene, Ore.—
Evening Star Mines Co. Files Articles of Incorporation..... 254
Third Unit to Generating Plant..... 258
Evening Star Mines Co. Files Articles of Incorporation 254
Events in Washington of Interest to Western Men..25, 65, 103, 179, 298, 338, 376
Accounting Regulation Controversy.. 298
Bend Water, L. & P. Co.'s Appeal..... 376
Bishop Creek Development..... 65
Chemical Foundation, Washington, D. C..... 103
Colo. River Commission Meeting..... 338
Depreciation Legislation, Washington, D. C..... 103
Dye Embargo, Washington, D. C..... 103
Expiration of Pittman Act..... 65
Federal Power Commission Activities 338
Federal Power Commission Survey of Pacific Coast Streams..... 298
Federal Power Comm. Valuation of Properties 376
Highway, Trunk, Construction..... 65
Intermountain States Planning Legislative Fights..... 376
Intermountain Water Power Resources 179
National Hydraulic Laboratory..... 179
Oil, Royalty, Salt Creek and Cat Creek Fields..... 298
Pittman Act, Expiration..... 65
Sacramento Flood Work..... 65
Silver Export Assn., Washington, D. C. 103
Strike Developments, Washington, D. C..... 103
Swing Bill..... 65
Trunk Railway Construction..... 65
War Minerals Relief, Washington, D. C..... 103
War Minerals Relief Comm. Recommendations of Chrome Claims Awards 376
Western Highway Construction..... 179
Everett, Wash.—
Continues Use of Telechronometers..... 145
*Elec. Home Low Cost Record—by H. S. Atwood..... 143
†Everlastin' Teamwork, The..... 267
†Everything to Lose and Nothing to Gain 268
†Evolution of Merchandising of Elec. Appliances 310
Examination for Position of Valuation Engineer Annnounced by U. S..... 107
Exception Taken to Article on Municipal Utility A/c. System—by Wm. Dolge..... 354
Exchange of Engineering Students Between Cal. & Sweden—by I. Herlitz..... 83
†Exchange Students Between Sweden and Pacific Coast..... 78

Page

Executive Committee Light & Power Assn. Meets..... 465
†Executive Failure, A Fundamental..... 39
Exeter, Calif.—Installing Electroliers..... 419
*Exhibiting Electric Home in Small Community, Stockton..... 456
Exhibits of Great Western Power Co. Filed With Cal. R. R. Commission..... 219
Expansion Is Decided Upon for Portland Power Plant..... 374
Expenditures, Power, Economic Factors Which Determine—by L. J. Moore..... 91
Expenditures for Denver & Rio Grande R. R. 216
Expenditures by Portland Gas & Coke Co. 460
Expenditures for Western Harbors for 1922 Announced 144
†Experiments Indicate Improvements in Impulse Wheel Design..... 193
Experiments With New Design of Impulse Wheel..... 219
Exposition, Calif. Industries, Aid to Elec. Men..... 377
†Exposition, Electrical, Intermountain..... 79
Exposition, Electrical, Merchandising Aid, Tacoma..... 332
*Exposition, Electrical, Salt Lake City..... 336
Exposition, Electrical, Second Annual, Tacoma 178
*Exposition, Rocky Mountain, Plans Maturing 104
†Exposition, Western, Portland, 1925..... 2
*Exposition is Acclaimed Success, L. A..... 331
*Exposition Plans Nearing Completion, Salt Lake City..... 218
Express Rates, Protest Against..... 353
†Extension of Publication Service by S. E. D..... 310
*Extensive Maintenance Prevented by Study of Local Conditions..... 136
*Eye Strain Eliminated by Good Illumination in Plants..... 249

F

†Fable of the Hardy Pioneers and the Cautious Wise Men..... 430
Factors, Economic, Which Determine Power Expenditures—by L. J. Moore.... 91
†Failure of Western Fishing Industry Impending 41
*Fairs, Industrial, Furnish Good Merchandising Prospects..... 100
Fallen Timber to Be Salvaged by Sale of Government R. R..... 66
Farm, Power on, Display at Calif. State Fair 258
Farm Light Dealer, Retail Location for —by John T. Bartlett..... 61
Favorable Report on Proposed Power Development, Arizona..... 220
Feature Addresses Attract L. A. Elec. Club Members..... 259
Federal Engineer Inspects Utah Irrig. Projects 181
Federal Power Commission—
Activities in Washington..... 338
Grants Calif. Permits..... 301
Power Permits Requested from..... 417
Power Petitions Pending..... 460
Work Is Reviewed..... 270
Federal Reserve District, Twelfth, Conditions 106
Federal Water Power Act Administration —by Paul Wooton..... 169
†Federal Water Power Act—Two Years' Operation Under the..... 116
†Few Industries Operate on as Narrow Margin as Do Utilities..... 430
*Few Suggestions for More and Better Business 176
Figures Show Foreign Trade Above Normal 5
*Fighting Corrosion as a Major Source of Waste in Industry—by R. H. Hubbell.... 9
Film to Show Home Electric Idea..... 137
Final Agreement Drawn by Colo. River Comm. 414
Final Conference of the Colo. River Commission 42
Financial Engineering—Book Review..... 28
†Financing Rural Lines, Need of Accurate Knowledge on..... 431
*Fire, Early Forest, Sweeps Northwest..... 5
*Fire Alarm Station, Central, S. F..... 257
Fire at McGill, Nevada..... 106
Fire Greatest Menace to Lumber Industry 232
Fire Hazard—German Made Irons Create —by D. E. Harris..... 120
†Fires, Electrical—Use of Carbon Tetrachloride for Extinguishing..... 117
Fires, Forest, Under Control..... 102
Fires, Forest, Worst in Six Years, Northwest 156
First Unit of Copper Co.'s Mill Reopened 464
Fish—All Sardines Do Not Come in Cans 294
*Fishing Industry, Western, Impending Failure 41
*Five Million Dollar Cocoanut Oil Industry in Northwest—by F. W. Watson..... 85

Page

*Flexible Source of Power Reduces Cost of Labor ... 20
*Flies, Electricity Used to Kill ... 243
*Flood Lights, Advantageous Publicity Through Use of ... 406
Flood Protection Plan for Pueblo, New ... 417
Forces and Direction of the Wind Controls Movement of the Straws—by T. E. Bibbins ... 196
Foreign Trade Above Normal, Figures Show ... 5
*Forest Fire, Early, Sweeps Northwest ... 5
Forest Fire Situation, N. W., Improved ... 68
Forest Fires Under Control ... 102
Forst Fires Worst in Six Years, N. W. ... 156
Forest Service Offers Timber for Sale, Burns, Ore. ... 257
Forestry Service Water Power Report Completed, Ogden ... 140
Fourth Unit Is Being Installed at Stave Lake Plant ... 335
Franchise for Furnishing Light and Power to Veronia, Presented to City Council ... 220
Franchise—Court Decides on People's Right to Grant, Denver ... 416
Freakish Action of Electricity in Recent Accident—by Wm. Coughlin ... 159
Fresno, Calif.—
*Nelson Elec. Home ... 252
San Joaquin L. & P. Corp. to Construct 10-Story Bldg. ... 297
Valley Elec. Sup. Co. Modernizes Repair Dept. ... 328
*Fruits, California, Indoor Drying Eliminates Weather Hazard ... 450
Fuel Problem, Marine, for Pacific Coast—by D. Dorward, Jr. ... 58
Function of Jobbber in Distribution System—by E. A. Kincaid ... 160
Furnace, Elec.—Utah Commission Denies Special Rate for ... 64
Furnaces, Electric, Save Freight and Promote Local Industry ... 59
Future in the Radio Business for the Dealer?—by Tracy Bibbins ... 93

G

Gas as Home Heating Fuel, Denver ... 296
General Electric Company—
Begins Natl. House Wiring Sales Plan ... 177
Coffin Fund Will Reward Service ... 463
Establishes Merchandising Dept. ... 102
*Makes Largest Vacuum Tube ... 377
Will Build Plant in Oakland ... 105
*Generating Stations, Remotely Controlled—by A. T. Parsons ... 203
†Generation Stations, Development of Autom. and Remote Controlled ... 192
Generators, Gas, L. A. Gas & Elec. Corp. Erects Three ... 219
German Made Irons Create Fire Hazard—by D. E. Harris ... 120
†German Patents and Electrochemical Development ... 230
"Get Together" Meeting Held by Salt Lake City Men ... 419
*Getting the Crowds to Visit the Home Electric—by E. G. Emerson ... 137
*Getting the Most Effective Service From Your Power Room—by Claude C. Brown ... 14
*Gold Ray Dam and Power House ... 396
†Golf and Luncheon Clubs—Some Observations ... 155
Golf and the Engineer—by T. A. Rickard ... 314
W. L. Goodwin Presents Views on Retailing of Electrical Merchandise ... 434
Government Holds Hearing on S. F. Bay Terminal Plan ... 27
†Government in the Merchandising Field, Competing With the ... 116
Government Railroad Sale ... 66
Government to Control British Broadcasting ... 270
Government to Reforest Burned Lands ... 43
Governors of Western States to Have Conference ... 67
*Gray Co., George A., Warehouse ... 329
Grease, Substitution for Oil Produces Annual Saving ... 19
Great Falls, Mont.—Gt. Northern Util. Co. Incorporates ... 460
Great Northern Freight Yards Enlarged ... 67
Great Northern Railway Electrification Announced ... 24
Great Northern Utilities Co. Incorporates ... 460
Great Western Pwr. Co.—
Exhibits Filed With Calif. R. R. Commission ... 219
Genl. Offices Moved ... 178
Green River Power Possibilities Surveyed ... 68
Green River Project—Utah Power Co. Files on ... 143

H

Hallowe'en Meeting, L. A. Elec. Club ... 379
Harbors, Western, Expenditures Announced ... 144

Page

Hart, Gov. Louis F. Announces Proposed Conference of Governors ... 67
*Hasten Stockton Development by New Spur Track ... 217
Hawaiian Islands—Progress Made in Boring Kilauea Crater ... 218
Haywood, Dr. Benjamin S., Speaks Before Electric Club, L. A. ... 419
*Health in Industrial Plants—Automatic Machinery Promotes ... 173
Heat Power Laboratory, New, for U. C. ... 255
Heating, Elec., Advocated by Western Manufacturer—by T. D. MacMullen ... 121
Heating, Elec., Editorial Endorsed—by W. Wesley Hicks ... 121
Heating, Elec., in Home—Accurate Knowledge Needed Before Installing—by Elbert Kramer ... 120
†Heating, Electric, Need for More Attention to ... 40
Heating, Elec. Bldg., Suggestion That More Attention Be Given—by A. Strauch ... 121
†Heating, Electric House, a Western Reality ... 3
*Heating Appliances in Yosemite, Elec. Cooking and—by P. H. Booth ... 82
Heating Fuel, Experiment With Gas, Denver ... 296
Heating, Industrial, Growing Field for Application of Elec. Equipment—by F. F. McCammon ... 44
Heating, Industrial Electric, to Be Discussed by Society ... 221
Heavy Appliance Display to Be Held in San Francisco ... 377
*Helping the Electrical Dealer Sell His Merchandise ... 408
Hendrie & Bolthoff Co. Radio Station ... 331
*Hetch Hetchy—Night Construction ... 64
*High Starting Torque Essential for Motor Drive ... 60
*Highly Efficient Cargo Conveyor Developed in Seattle ... 98
*Highway and Street Lighting Exhibit Shows City Possibilities in Adequate Illumination—by J. R. Colville ... 44
†Highway Sign—Tax as Well as Exclude It From Right-of-Way ... 268
*Hiring Men for Business—What Are Your Methods?—by George H. DeKay ... 12
*History, Early California, Depicted at Sacramento ... 62
*Hobrecht, J. C. Co. Store ... 163
†Hocus Pocus Doesn't Work in Seattle Nor Will It Elsewhere ... 311
Home, Electric, Story in a New Way—by S. W. Bishop ... 101
*Home, Electrical, Exposition Booklet Published ... 328
Home Electric Film in Process of Production ... 137
Home Electrical (See Electrical Homes)
*"Home Electrical" Idea to Receive New Impetus ... 154
Home Ownership and Community Stability ... 118
*Home Repair Work, Encouraging ... 155
Homes. Electrical—Calif. Elec. Coop. League to Increase ... 278
Homes Opened in Oakland, 10 Model ... 313
Honesty, Ethics and the Electrical Contractor—by J. E. Bullard ... 63
Hotel and Power Plant Will Be Built at Lake Arrowhead ... 335
*Hotel Service, Electricity in Modern, Camp Curry ... 327
Hotels Planned in Utah by U. P. R. R. ... 339
†House Numbers, Placing on Curb Successful ... 192
†House Organs, Paid Advertising Has No Place in ... 350
House Wiring Sales Plan, Genl. Elec. Begins Natl. ... 177
*How Electric Rates Are Fixed Under Commission Regulation—by Lester S. Ready ... 50
*How the Suburban Dealer Can Compete With the City Store ... 214
How to Retail Radio—Book Reviek ... 300
How 24 Years Ago Compared With Today in Hydroelec. Projects—by C. Bernston ... 83
Hutchinson Lumber Co. Installs Elec. Yarders and Loaders ... 66
Hydraulic Laboratory, Propose National ... 157
Hydraulic Society's New Pamphlet ... 300
Hydroelectric Plant at Buffalo Rapids ... 216
Hydroelectric Plant Contract Let, Pacific Power and Light Company ... 25
Hydroelectric Plants, San Gorgonio Co. to Install ... 254
Hydroelectric Projects, 24 Yrs. Ago Compared With Today—by Carl Bernston ... 83
Hydroelectric Resources, Utah ... 67

I

Idaho— I
Available Water Supply Statement to Fed. Power Com ... 418
Dam and Reservoir Being Built, Carey ... 376

Page

Idaho—(Continued)
Elec. Men in Game Quest ... 221
Irrigationists Find Underground Water Suppply ... 141
Irrigationists Seek Permit for Snake River Project ... 27
Kootenai Power Co. Hearing ... 106
Murtaugh L. & P. Co. to Operate ... 104
Swendson, W. G., Approves Boise Valley District ... 143
Uniform Accounting Adopted by Utilities Commission ... 64
Idaho, Southern, Convention Postponed ... 69
Idaho Comm. Orders Co. to Reduce Power Rates ... 416
Idaho Power Co. Entertains Editors ... 464
Idaho R. R. to Build Connect. Line ... 417
Ideas, Business Gettting, from So. Calif. ... 175
*Illumination, Show Window, Business in ... 99
*Illumination in Plants, Good, Eye Strain Eliminated by ... 249
Illumination of Quarry and Tramway for Night Production ... 406
†Impending Failure of Western Fishing Industry ... 41
Imperial Irrig. Dist. Engineer Investigates Drainage ... 300
Importers and Manufacturers Benefited ... 80
*Improperly Dried Lumber May Be Salvaged by Use of Dry Kiln ... 212
Impulse Wheel, Experiments With New Design ... 219
†Impulse Wheel Design, Experiments Indicate Improvements ... 193
†In Times of Peace Prepare for War ... 429
*Increasing Convenience of Elec. Appliances—by D. A. Wolff ... 370
Increasing Menace of Tax Free Institutions ... 42
*Indoor Drying of Calif. Fruits Eliminates Weather Hazard ... 450
Industrial Dept. Organized, Salt Lake Commercial Club ... 142
Industrial Elec. Heating to Be Discussed by Society ... 221
Industrial Exposition, Denver, Feb. 5 ... 374
*Industrial Fairs Furnish Good Merchandising Prospects ... 100
Industrial Heating Growing Field for Application of Elec. Equipment—by F. F. McCammon ... 44
*Industrial News ... 296, 334, 374, 414, 460
*Industrial Peace, S. F. Moves for—by Warren H. McBryde ... 237
Industrial Problems—Electrical Laboratory Proposed for ... 20
†Industrial Program, New, Under the American Plan ... 231
Influx of German Made Irons Creates Fire Hazard by Faulty Construction—by D. E. Harris ... 120
Injunction Sought to Prevent Power System Appraisal ... 463
†Injustice of Not Taxing Municipally Owned Power Plants ... 351
Inquiry Regarding Alleged Freakish Action of Electricity in Recent Accident—by William Coughlin ... 159
*Installs Special Motors and Control for Individual Drive ... 326
Instruction Conference, Denver Radio Dealers ... 419
Insurance, Group, Roeblings Sons Co. Employees Receive ... 297
Insurance Against Destruction From Electrical Causes ... 211
Insurance Protection, No Saving to Reduce Expenses by Cutting Down—by W. H. Chowen ... 7
*Insuring California's Industrial and Agricultural Growth—by Norman S. Gallison ... 123
Interesting Road Statistics ... 43
Intermountain Division, Natl. Radio Jobbers' Assn. Organized ... 338
†Intermountain Electrical Exposition, The ... 79
Interstate Rivers—Rights of Downstream Users Sustained—by Paul Wooton ... 53
Interview With W. S. Murray on Railway Electrification in the West—by Robt. Sibley ... 393
†Investment Bankers Extended Gracious Manifestation of Goodwill ... 311
Investment Bankers to Visit Kerckhoff Dam ... 220
*Iron and Steel, Use by Western Industry ... 250
Iron Industry, Basic, Made Possible by Elec. Furnace Need of Western Industry—by J. W. Beckman ... 82
Irons, German Made, Create Fire Hazard—by D. E. Harris ... 120
Irrigation Congress, Utah, Holds Session ... 145
Irrigation Map of California Ready for Distribution ... 26
Irrigationists, Idaho, Find Underground Water Supplpy ... 141
Irrigationists Seek Permit for Snake River Project, Idaho ... 27
Is There a Future in the Radio Business for the Dealer?—by Tracy Bibbins ... 93
It Is No Saving to Reduce Expenses by Cutting Down Insurance Protection—by W. H. Chowen ... 7

Page

J

Japan—
Electric Rates Reduced ... 392
Power Co. Wireless System Planned ... 393
Survey Shows Avail. Pwr. Sites ... 232
Japanese Rolling Mills Operated by Government, Yawata ... 106
Jerry the Curbstoner—by Rey Chatfield ... 241
Jobber, Bldg. to Suit Requirements of ... 373
*Jobber, Dealer and Sales Agent ... 293, 328, 368, 408, 452
Jobber, Function in the Distribution System—by E. A. Kincaid ... 160
Jobber Uses Sales Letters to Excellent Advantage, Denver ... 21
Jobbers, Elec. Supply, Meet at Coronado ... 461
*Jobber's Service, Electrical ... 285
Jobbers Discuss Contr.-Dealer Situation ... 178
*Johnson Valves, Relative Size Shown ... 376
†Joint Committee and Soc. El. Dev. ... 230
Joint Committee for Business Develop., Objects Announced—by E. W. Lloyd ... 435
*June Bride Week Brings Out Many Window Displays ... 22
June Bride Week Results in Both Publicity and Improved Sales ... 61

K

Kaffer, F. X., Assisting W. J. Keating ... 293
Kerckhoff Dam, Invest. Bankers to Visit ... 220
*Kiln, Dry, Improperly Dried Lumber May Be Salvaged by Use of ... 212
Kimball, Dexter S., Speaks Before Engineers of Ogden ... 221
*Kilowatt-Hour, Measuring the ... 327
King Tax Bill—Cal. R. R.'s Lose Protests Against ... 64
Kitchen, Electrical, Is Household Dream ... 248
Klamath River Project Granted Permit by Commission ... 338
*Klamath River Road Will Aid Power Development ... 319
Kootenai Power Co. Ordered to Reduce Power Rates ... 416
Kootenai Power Co. Valuation Hearing ... 106

L

*Labor, Cost of, Flexible Source of Power Reduces ... 20
Labor, Sources From Which May Be Recruited—by George H. DeKay ... 209
Laboratory, Electrical, Proposed for Industrial Problems ... 20
Laboratory, Heat Power, for U. C. ... 255
Lack of Knowledge Cause of Most Power Company Complaints—by C. B. Merrick ... 167
Ladies' Meeting, Denver Section, A.I.E.E. 465
Lake Arrowhead, Hotel and Power Plant Will Be Built ... 335
Lake Cushman Project to Go to Court for Settlement ... 140
Lake Quinault Timber to Be Sold to Highest Bidder ... 297
Land Deeds—Calif. R. R. Comm. Approves ... 300
Large Dam and Reservoir Is Being Built in Idaho ... 376
*Largest Residential Store in Denver ... 213
Laundryowners Feel That the Electragists Are Their Worst Competitors—by S. W. Bishop ... 235
Legislation, "No Shingle", California ... 81
†Lesson of the Water and Power Controversy, The ... 350
Letters to the Editor ... 6, *44, *82, 120, 158, 196, 234
License Law for Electricians, Olympia ... 215
Light Plant, Electric, Point Grey, B. C. ... 296
*Lighting Exhibit Shows City Possibilities in Adequate Illumination—by J. R. Colville ... 44
*Lights, Flood, Publicity Through Use ... 406
Line Losses, Synchronous Motors Reduce ... 366
Liquid Fuel, Burning—Book Review ... 258
Little Rock Pr. & Water Co. Project Authorized ... 301
Local Elec. Leagues to Hold Conference ... 157
Log Shippers Win Important Case Against Railroads ... 313
Logan, Utah, Applies for Water for Power Generation ... 298
Logan River Appropriation Withheld for One Year ... 334
Logging, Electric, Western Mills Prove Success of ... 194
Long-Bell Lumber Co. Starts Mill and Town ... 418
Long-Bell Lumber Co. to Build ... 140
Long-Bell Lumber Co. Will Build Town ... 216
*Long Life and Low Upkeep Makes Elec. Truck Good Investment ... 450
Long Transmission Line Nearing Completion in Oregon ... 334
Los Angeles, Calif.—
Assoc. Contrs. Convention ... 301
Banks Merge ... 24
Bldg. Activity Demands Much Elec. Equipment ... 418

Page

Club Holds Spooky Hallowe'en Meeting ... 379
Electric Club Addressed by Dr. Haywood ... 319
Electric Club Members Addressed ... 259
Elec. Contr.-Drs.' Picnic, Verdugo Hills Rancho ... 339
Exposition Is Acclaimed Success ... 331
Files for License for Proposed Powerhouse ... 417
Injunction Sought to Prevent Power Appraisal ... 463
*Pageant of Progress ... 330
Radio Bureau Organized by Jobbers ... 419
Right to Condemn Power Site Denied ... 374
Shipping Firm Gets Contract ... 67
To Enlarge San Francisquito Plant ... 107
*U. S. Motors' New Home ... 105
Westinghouse Has New Home ... 304
Los Angeles Gas & Elec. Corp. Erects Gas Generators ... 219
*Lumber, Improperly Dried, May Be Salvaged by Use of Dry Kiln ... 212
Lumber Co. Starts Cons. of Mill, Booth Kelly ... 335
Lumber Co. to Build, Long-Bell ... 140
Lumber Exports, N. W., Show Gain ... 27
Lumber Exports Quadrupled, Washington ... 107
Lumber Industry, Fire Greatest Menace ... 232
Lumber Mill to Be Electrified, Seattle ... 254
Lumber Mills, Puget Sound, Wage Increases ... 5
Lumbermen's President Addresses Joint Electric Meeting, Portland ... 419

M

*Machinery, Autom., Promotes Health in Industrial Plants ... 173
*Maintenance, Extensive, Prevented by Study of Local Conditions ... 136
*Majestic Electric Development Plant ... 67
Major Reasons Why Employees Quit Their Jobs—by Geo. H. DeKay, Jr. ... 89
*Making the Warehouse Part of the Display Room ... 329
†Making Use of the College Man ... 2
Manual of Estimating Prepared for Assn. Men ... 293
*Manufacturer, Dealer and Jobber Activities ... 32, 72, 110, 148, 184, 224, 262, 304, 342, 382, 422, 468
Manufacturer Is Interested in Retail Sales Problems, Why?—by E. A. Kincaid ... 54
Manufacturer to Consumer Merchandising, Three Methods—by E. A. Kincaid 94
Manufacturers, Modern Use of Exclusive Sales Agencies by—by E. A. Kincaid ... 246
*Manufacturer's, Electrical, Point of View—Service ... 283
Manufacturers and Importers Are Benefited ... 80
Manufacturers' Assn. to Establish Paper Mill ... 462
Manufacturers' Representatives Co. Uses New Advertising Idea ... 371
*Manufacturing Methods and Concrete Structures ... 97
*Many New S. F. Homes Completely Electrified ... 140
Map of California Prepared by R. R. Commission ... 141
Marconi Co. Plans Station in Vancouver ... 415
Marine Fuel Problem for Pacific Coast—by D. Dorward, Jr. ... 58
†Marketing Western Mining Products, Some Problems in ... 41
Markets, Western, Opportunities Seen in 352
*Material Waste Prevented by Using Electricity ... 212
May Start Work on Rio Grande Project Immediately ... 463
McIntyre, Kenneth A., on Western Trip ... 69
Measuring the Kilowatt-Hour ... 327
†Meeting of Elec. Leagues at Assn. Island 231
Meetings ... 301, 339, 378, 419, 465
Meetings of Interest to Western Men ... 29, 69, 107, 145, 181, 221, 259
*Men and Machinery, Time Devoted to—by J. David Houser ... 47
Menace of Tax Free Institutions, Increasing ... 42
*Merced Irrigation District Uses Concrete Models of Dams ... 28
Merchandise, Electrical, W. L. Goodwin Presents Views on Retailing ... 434
*Merchandise, Helping the Electrical Dealer Sell ... 408
†Merchandising, Central Station ... 349
†Merchandising, Electrical, Putting on Its Proper Plane ... 154
Merchandising, Manufacturer to Consumer, Three Methods—by E. A. Kincaid ... 94
*Merchandising Aid, Tacoma Elec. Exposition ... 332
Merchandising Channels, California Recognizes Broader ... 179
Merchandising Department Established by Genl. Elec. Co. ... 102
†Merchandising Field—Competing With the Government in the ... 116

Page

†Merchandising of Elec. Appliances, Evolution ... 310
*Merchandising Prospects, Industrial, Fairs Furnish Good ... 100
Merchants' Convention, Pacific N. W., Planned ... 69
*Methods in Hiring Men for Business, What Are Yours?—by Geo. H. DeKay ... 12
Mexican Light & Power Co. Plans New Plant, Beristan, Mex. ... 334
Mexico Will Have More Elec. Power ... 334
Mill and Elev. Co., Casper, Wyo., New ... 103
Million Dollar Factory to Begin Operations, Durant ... 66
Mine and Smelter Supply Co., Changes Personnel ... 293
Mine Rescues, Wireless May Be Used ... 392
Mines, Utah, New Railroad to ... 140
Mining Co. Signs Contract to Buy Elec. Pwr. ... 375
Mining Outlook Improving ... 81
†Mining Products, Western, Problems in Marketing ... 41
*Model Installation of Elec. Cooking and Heating Appliances in Yosemite—by P. H. Booth ... 82
*Modern Electrical Conveniences in a Mountain Camp—by Chas. Mathews ... 447
*Modern Store, Business Asset, Seattle ... 295
Modern Use of Exclusive Sales Agencies by Manufacturers—by E. A. Kincaid ... 246
Modesto, Calif.—
State Commission Ruling Delays Bond Issue ... 334
Modesto-Turlock District Not to Sell Wholesale Power ... 464
Modesto-Turlock District Votes Not to Sell Don Pedro Power ... 64
Moffat Tunnel Law Is Upheld by Colo. Supreme Court ... 460
Molalla Electric Co.—
Canby Offers to Buy ... 178
Distributing System Purchased by Canby, Ore. ... 257
Money—Washing Machine Scrubs in Salt Lake Store ... 21
Montana Power Co. Will Develop Polson Site ... 258
Moody's New Rating Book Published ... 220
†Moses, A—Wanted ... 77
*More and Better Business Stressed at Convention, N. E. L. A., Glenwood ... 256
Morena Spillway, Engineer Recommends Enlarging ... 300
Motion Picture, New, Elec. Home to Be Featured in ... 331
*Motor Control, Concentrated, Increases Efficiency ... 174
*Motor Drive, High Starting Torque Essential for ... 60
Motor Driven Booster Pump Is Installed at Portland ... 335
*Motors, Special, and Control for Individual Drive Installed ... 326
Motors, Synchronous, Reduce Line Losses ... 366
*Motors for Big Creek Development ... 65
Mountain States Machinery Co. Awarded Contract for Asbestos Shingles ... 331
Mountain States Power Co.—
Erects Transmission Line in Record Time ... 270
Purchases Hydroelec. Power ... 81
Municipal Lighting Rates, Reduction, Seattle, by 1923 ... 219
Multnomah Lumber & Box Co. Sells Securities ... 377
*Municipal Taxes—Are We Getting Adequate Return?—by Wm. H. Nanry ... 56
Municipal Util. A/c System—Exception Taken to Article on—by Wm. Dolge ... 354
Murray, Utah, Applies for Water Diversion ... 463
Murray, W. S., Addressed Spokane Elec. Joint Meeting ... 419
Murray, W. S., Interview on Ry. Electrification—by Robt. Sibley ... 393
Murtaugh L. & P. Co. to Operate in Idaho ... 104
Muscle Shoals Development Subordinated 25

N

N. E. L. A.—
*Convention, Glenwood Springs ... 256
Convention in N. Y., 1923 ... 254
Natl. Tech. Section Committee Organized ... 69
President Sees Menace in Cal. Power Bill ... 144
†Pres. Smith's New Policies ... 41
Rocky Mtn. Meeting, Glenwood Spgs. 145
National Board of Fire Underwriters Establish S. F. Branch ... 80
†Natl. Engineering Soc. Develop, Solidarity ... 269
†Natl. Founders' Assn.—Demagogue Held to be Nature's Act ... 311
National Hydraulic Laboratory, Propose ... 157
National Meeting of Local Electrical Leagues in Retrospect—by R. A. Balzari ... 315

Page

National Technical Section, N. E. L. A., Committee Organization 69
†Need for More Attention to Electric Heating 40
†Need for Simplified Rates 389
†Need of Accurate Knowledge on Financing Rural Lines 431
Nevada Cons. Copper Co.'s Concentrating Plant Destroyed by Fire 106
New Advertising Idea Used by Selling Organization 371
New Banks Will Stabilize Rural Credits 4
†New Economic Triumph in Development of High Voltage Transmission 269
New Electric Handbook—Review 300
*New Elec. Home Exposition Booklet Published 328
New Electrified R. R. Seeks Recognition from I. C. C. 338
New Heat Power Laboratory for U. C. 255
†New Industrial Program Under Amer. Plan 231
New Mexico—
University Will Have Illum. U. 300
New Milling and Elevator Co., Casper, Wyo. 103
New Officers Elected for Cal. Coop. Campaign 107
†New Policies of Pres. Smith, N. E. L. A. 41
New Power Co. Authorized to Operate in Idaho 104
New Radio Co. Erecting Factory, Salt Lake City 68
New Rating Book Published, Moody's 220
New York Engineer Warns of Dangers of Water Power Act 339
New York Syndicate Makes Bid for Canadian Ry. 460
Newly Discovered Utah Cave Is Now Electrically Lighted 26
*Niagara Falls Power Co.—Relative Size of Valves Shown 376
*Night Construction on Hetch Hetchy 64
Night Production, Illum. of Quarry and Tramway for 406
"No Shingle" Legislation in Cal. 81
Northern Court Decides License Law for Electricians 215
Northwest—
*Cocoanut Oil Industry—by F. W. Watson 85
*Early Forest Fire 5
Forest Fire Situation Improved 68
Forest Fires Worst in Six Years 156
Northwest Cities Finance Local Development 157
*Northwest Convention at Boise 16
Northwest Electric L. & P. Co.—Properties Taken Over by Seattle Corporation 102
†Northwest Electric Light & Power Assn. 1
Northwest Electric Light & Power Assn. Meeting 465
Northwest Lumber Exports Show Gain 27
Northwest Power Companies Taken Over by Washington Coast Utilities Co. 102
Northwestern Electric Co.—
Expansion 374
Gets Permit for Lewis River 26
Radiophone at White Salmon 27

O

Oak Grove Develop. Contract Given Portland Firm 334
*Oak Grove Project, Ptld. Ry. L. & P. Co. 198
Oak Grove Project Approved 24
Oakland, Calif.—
*Better Homes Exhibition 436
*Better Homes Exposition 458
Durant Factory Starts Operations 66
Electric Club Holds Successful Meeting 259
Elec. Club Dedicates Claremont Substation 339
Genl. Elec. Will Build Plant 105
Ten Model Homes Opened 313
Obituary—
Bent, Alfred E. 467
Blaschke, J. F. 71
Clarke, R. L. 421
Corbet, H. E. 467
Faris, David D. 147
Frueauff, Frank W. 183
Gordon, Claude P. 109
Kelly, John Forrest 381
Loveland, Col. Harvey D. 31
Lucock, John S. 341
Naphtaly, Samuel 71
Patterson, Alexander H. 109
Roberts, Louis B. 147
Sechrist, Albert 109
Objects of Joint Committee for Business Develop. Announced—by E. W. Lloyd 435
Officers Are Selected by Rocky Mountain League, New 419
Ogden, Utah—
Dexter S. Kimball Speaks 221
Water Power Report of Forestry Service Completed 140
Ohio Brass Co. Ships 25 Cars Insulators to N. W. 257
Oil, Alaskan, Development Started in 80
Oil Prices at Pre-war Levels Again 118
*Oil Well Pumping, Portable Power Plant Developed for 211
Old Mission Portland Cement Co. Illumination, Quarry and Tramway 406
Olympia, Wash.—License Law for Electricians 215
Olympia Power Co. Installs Worthington Turbines 461
†On the Threshold of Prosperity 229
*One Million Watt Vacuum Tube Is Largest in World 377
Ontario Rates Increased by Commission 233
Open Shop Coal Mines, Washington 157
Opportunities Seen in Western Markets 352
Oregon—
Cal.-Ore. Power Line Nearing Completion 334
Cement Co. Plans Extensive Development 335
Changes Policy Regarding Rural Line Extensions 338
Co. to Have Highest Head Reaction Turbine 414
State Dev. Plan by Ptld. Ch. of Comm. 353
Oregon Co. Undertaking Large Project 81
Oregon Power Plants—Yamhill Elec. Co. Will Make Improvements 297
Oregon Pulp & Paper Mill to Be Enlarged at Once 463
Oregon Short Line Will Build Secondary Main Line 463
†Organization, Anent Habit of Assimilating Food Prior to 231
†Organizing a Curbstone Contractors' Assn. 230
Oroville Plans to Purchase Lines of Pacific Gas and Electric Co. 25
†Outstanding Problems in Long Distance Transmission, Three 269
Overhead vs. the Bended Arm—by Joe Osier 215

P

Pacific Coast Elec. Assn. Meeting, Del Monte 419
Pacific Coast Meeting, A. I. E. E. 181
Pacific Gas & Electric Co.—
Claremont Substation Dedicated 339
Decision on Construction to Be Made in Spring 463
*Editors Visit Pit River Dev. 68
*Insuring California's Industrial and Agricultural Growth—by Norman S. Gallison 123
Oroville Plans to Purchase Lines 25
*Pit River No. 1 Opened 296
R. R. Comm. Orders Elimination of Hazardous Conditions 335
*To Erect New Bldg. 462
Turlock Irrig. District Asks Price on Lines 178
Valuation Case Before Comm. 333
†What the Pit River Development Means to the West 115
Will Improve Sacto Property 104
World's Largest High Tension Switches, Pit River 220
Pacific N. W. Merchants' Convention, Seattle Planned 69
Pacific Light and Power Co.—
Asks for Prelimin. Water Permit 257
Lets Hydroelectric Plant Contract 25
Officials Convene, Hood River 339
Plans Extensions 460
Starts Cons. on Hood River 66
*Pageant of Progress, L. A. 330
†Paid Advertising Has No Place in House Organs 350
Palisade Lt. & Pwr. Co. Purchased by Colo. Capitalists 102
Pan-Pacific Trade to Benefit by Coming Conference 195
Paper and Pulp Mill Under Construction, Denver 216
Paper Mill, Third Unit Added, Salem 254
Paper Mill to Be Enlarged, Ore. City 463
Paper Mill to Be Established at Tumwater 462
Pass System, Weekly, Started by Tacoma Street Railways 140
Pass System Experiment on Elec. Lines 156
†Patents, German, and Electrochem. Develop. 230
†Peace, In Times of, Prepare for War 429
Permit to Develop Middle Fork of Eel River Requested 258
Permit to Develop Utah River Subject of Application 416
Permits and Applications for Water Are Announced 375
Personal Safety Is Promoted by Effective Warning Signal 19
*Personals 30, 70, 108, 146, 182, 222, 260, 302, 340, 380, 420, 466
Adams, H. O. 109
Addison, Dr. Thomas 420
Adelquist, H. L. 183
Alexander, Magnus 108
Allen, H. W. 302

*Personals—(Continued)

Page

Allyn, R. M. 380
Anderson, George Baker 340
Anderton, John H. *302, 467
Andrew, E. L. 147, *183
Ardouin, L. R. 380
Arkwright, Preston S. 30
Armstrong, George E. *71
Ashcraft, Harry 421
Athearn, Fred 108
Austin, A. L. 222
Averill, F. N. 70, 381, 467
Aylesworth, M. H. 31, 71
Bach, C. R. 381
Bacon, E. P. 182
Baker, W. P. 380
Baldwin, G. P. *182
Ball, E. B. 380
Ballard, R. H. 222
Balzari, R. A. 222, 303
Bannion, Major H. S. 109
Barnum, D. C. 341
Baron, A. E. 302
Barth, Jerry 303
Bauer, Dr. L. A. 223
Baum, F. G. 381, 421
Bayley, Guy L. *381
Beach, Lansing H., Maj.-Gen. 31
Beal, R. R. 420
Beaufort, J. H. 223
Beckwith, Albert H. 30
Bennett, Raymond 260
Bent, D. E. 341
Berry, J. G. 109
Berry, W. S. 70, 146, 303
Betts, Douglas 466
Bibbins, T. E. 31, 70, 340, 466
Bigelow, George 146, 303, 380, 466
Birkett, M. W. 30
Bishop, S. W. 147, *183
Bixler, George W. 70, 261
Black, Col. C. N. 71
Black, J. B. *261
Blackwell, James E. 31, 147, 222
Blake, F. E. 223
Blanchard, C. J. 147
Blanchard, Frank LeRoy 223
Blee, C. E. 421
Board, V. L. 467
Bohnert, A. M. 261
Bole, H. B. 109
Booth, P. H. *303, 380, 466
Boring, George 260
Bostwick, Henry 302
Boutwell, W. S. 302
Bowie, C. P. 261
Boyer, Frank E. 421
Boynton, B. F. 108
Bozell, H. V. 223
Brackenridge, W. A. 302
Bradshaw, William 147
Brittain, J. S. 261
Britton, Emmet N. 260
Britton, John A. 222, *421
*Brockett, Norwood W. 108
Broilis, Frank T. 182
Brown, Arthur A. 146, 182
Brown, C. G. 421
Brown, C. M. 380
Brown, Don 380
Brown, Mayor E. J. 31
Brown, Walter F. *340
Browne, Earl *223
Brunton, David W. 108
Burchard, Anson W. 147
Busey, J. L. 380
Byllesby, Col. Henry M. 223
Cabalero, Sr. Don Mario Visini 109
Caldwell, Hugh M. 31
Caldwell, R. E. 146, 222
Campbell, George 147
Cannon, H. B. 467
Cargo, L. M. 146
Carhart, A. H. 109
Carpenter, Lewis G. 303
Carpenter, W. M. 380
Carter, A. E. 380
Case, J. O. 420
Castle, Otis H. 183
Cavanaugh, Col. J. B. 182
Chambers, Percival 340
Chamblin, Clyde L. 303
Chandler, Harry 108
Chapman, Frank B. 147
Chappell, W. C. 467
*Charles, Mrs. B. R. (Prudence Penny) 380
Cheever, Markham 70, 222
Childs, A. W. 108
Cobley, A. W. 421
Coldwell, O. B. 71, 421
Colesworthy, J. B. 223
Coman, W. E. 30
Conrad, F. C. 466
Coombs, H. W. 380
Cooper, Joel 182
Cooper, John J. *420, 467
Corbett, Adrian 109
Cotterill, George F. 30
Cottrell, Frederick G. 420
Courtwright, H. H. 146, 303, 341
*Cramer, Harry P. 381
Creed, W. E. 223, 466

Page

*Personals—(Continued)

Creighton, E. E. E. F. 182
Crilley, J. E. 421
Crossley, J. H. 223
Cuervo, Sr. Don Luis Sanchez 109
Cunningham, J. H. 71
Dale, W. Jocelyn E. 30
Davidson, J. E. 261
Davies, J. V. 108
Davis, Arthur P. 146, 222, 381
Davis, H. P. 421
Davis, James A. 261
Davis, L. W. 223, 261
Deming, W. M. 381, 466
Dennis, H. W. 183
DeSellem, G. W. 302
Desmond, J. S. 466
Dewey, E. P. 30
DeWitt, W. H., Jr. 31
Dimock, A. H. 222, 341
Dodd, S. T. 466
Doherty, R. E. 182
Doolittle, H. L. 420
Dostal, J. Frank *303, 381
Douglas, J. C. *147
Dow, W. H. 466
Drury, Aubrey 31
Dupuy, Ben F. 303
Durand, Dr. W. F. 109
Eardley, E. H. 222, 302, 380
Earle, Warrren C. 30
Eastwood, E. O. 260
Eckart, Nelson A. 109
Edwards, W. R. 303
Elliott, H. F. 420
Elliott, R. W. 421
Eltringham, Robert L. 146, 183, 303
Emmons, G. E. 466
Ensign, F. H. 146
Eshelby, A. W. 222
Evans, E. A. 380
Evans, Herbert S. 71
Evans, P. H. 380
Eveleth, Chas. E. 261
Faccioli, F. G. 182
Fagan, Frank D. 70
Fall, Albert B. 340
Farmer, Robertson 261
Fenton, J. H. 146
Ferguson, H. M. 147
Finn, C. C. 303
Fischer, J. 340
Fisher, R. E. *108, 146, 303, 341
Fitch, William C. 108
Flinn, Alfred D. 70
Fogwell, H. H. 420
Folland, R. S. 380
Fowler, Fred H. *260
Fox, Arthur Ward 261
*Freeman, John R. 302
Frost, A. M. *341, 467
Frost, W. L. 380, 466
Gaffney, C. O. 341
Garbutt, Harry L. 302, *466
Garrett, J. A. 183
Gavin, Miss Margaret E. 341
Gay, F. W. 30
Gentry, Rufus G. 260, 467
George, H. C. 108, 222
Gerhardt, Frank 340
Gibson, B. Y. 467
Goddard, P. L. *260
Goethals, Major-General George W. 260
Gough, P. G. 341
Gould, B. M. 380
Graham, N. W. 380
Gray, George A. 381
Greenawalt, John 70
Griffith, Franklin T. *30, 183
Griswold, A. E. 183
Grove, Clark 466
Gunther, Wm. E. 260
Hackett, J. W. 70
Hall, C. B. 146
Hall, Henry T. 146
Hamele, Ottomar 261
Hamilton, R. F. 109
Hanchett, Lafayette 222
Hancock, J. C. 260
Hancock, J. W. 340
Harris, D. E. 340, 466
Hart, R. A. 260
Hartley, Ross 341
Harvey, Fred D. 380
Hawks, H. D. 303
Hays, David 466
Hays, Walter 340
Hazard, Fred 260
Headrick, E. C. 183, 341
Hearn, R. L. 260
Heath, L. P. 303
Hedrick, L. V. 183
Heise, C. E. 31, 109, 222, 421
Hemmon, George 146
Heston, Walter C. *223
Henderson, D. W. 303
Herdti, L. A. 380
Heywood, A. R. *70
Hibbard, H. Alex. 303
Hickey, J. P. 182
Hill, C. L. 303
Hillis, C. C. 146, 421
Hitchcock, H. W. 467

Page

*Personals—(Continued)

Hoagland, L. E. 380
Hobbs, Leonard A. *341, 381
Hodgson, George O. 467
Holsey, T. E. 71
Holst, Ben C. 340
Hoover, Herbert C. 467
Horton, P. A. 341
Houser, J. David *71
Hughes, George A. 31, 381
Hughes, H. H. 420
Humphreys, Richard L. 302
Hurley, Edward N. 381
Hurley, Neil W. 381
Hutchinson, Ely C. 30
Ingham, George V. W. 147
Jackson, A. H. 109
Jackson, A. M. 147, 222, 380
Jackson, Carl D. 146
*Jacobs, Gaskell S. 380
Jakobsen, B. F. 340
Jamison, J. H. 340
Janzen, H. W. 421
Jewell, Ralph H. 30
Jewett, Frank B. *31
Johnson, L. B. 261
Johnson, W. G. 420
Johnson, W. L. 222
Johnston, J. W. 421
Johnston, T. J. 183
Jones, E. H. 183
Jones, Walter E. *261
Kahn, J. A. 466
Kalenborn, A. S. 31
Kapus, W. N. 261
Kee'er, Clarence 467
Kemp, A. N. 260
Kennedy, D. K. 303
Kennedy, Thomas F. 71
Kerry, J. G. G. 222
Kimball, Dexter S. *30
Kimball, G. E. 467
King, C. W. 108
Kissel, F. T. M. 182
Kivel, Frank 261
Knopp, Otto 421
Knost, J. H. 146
Koening, Harry E. 466
Kramer, A. E. 109
Kunkel, Chas. D. 223
Kyle, Robert 421
Lackey, O. F. 303
LaMont, L. C. 420
Lanyon, S. Herbert 70
Larsen, Major C. E. 341
LaRue, E. C. 222
Laufenburg, W. J. 30
Lawrence, Prof. C. W. 260
Leis, G. K. 380
Levinson, Nathan 261
Lewis, George E. 147, 182, 467
L'Hommedieu, W. P. 302
Lighthipe, J. A. 223
Linden, Bernard H. 222
Lippincott, J. B. 30, 260
Littler, Guy 381
Lockridge, Andrew M. 261
Loughery, Cyril C. 182
Luckenbach, C. A. 183
Lyall, W. R. 260
Lyman, R. R. 222
MacDonald, W. D. 31
Mackey, E. M. 146
Manahan, R. H. 182, 302
Markee, E. P. 70, 466
Marr, G. A. 108
Marsh, D. G. 420
Martin, Carl 380
Martin, George D. 420
Martinez, R. E. 109
Mason, David T. 223
Mathison, P. 146
Maxwell, M. P. 70
May, H. B. 223
Mayo, Major George 420
McArthur, Lewis A. 30
McCammon, F. F. 467
McCarthy, Edward C. 222
McCauley, P. W. 380, 421
McClellan, William T. *146
McClure, D. C. 71, 183
McCollom, J. G. 466
McCormick, E. O. 381
McCoy, George T. 261
*McEniry, Frank J. 467
McGrath, William H. 222
McIntyre, Kenneth 223
McLellan, J. H. 260
McRoberts, C. M. 340
Melvin, H. L. *70
Meredith, Wynn 70
Merrick, C. B. 466
Miles, J. G. 222
Miller, A. A. 222
Miller, Kempster B. 222
Mills, F. S. 466
Mills, John *31
Moan, A. J. 182
Moody, A. S. 71, 380
Moody, Lewis F. 147
Morine, W. L. 70
Morphy, A. E. 70
Muhlfeld, G. O. 70

Page

*Personals—(Continued)

Munroe, Roy G. 340
Murphy, R. W. 183, 380
Murray, W. S. 303, 381
Myers, George L. 260
Myers, W. J. 31
Nash, E. E. 420
Nollenberger, Theo. 30
Norcross, Fred *222
Olson, Norman 340
Opitz, C. 303
Orear, O. J. 146
Orr, J. W. 380
Osborne, C. P. 341
Osborne, H. Z., Jr. 183
Ossorio, Sr. Don Moreno 109
Pace, T. J. *421
Painter, J. C. 31, 466
Palmer, E. A. 302
Parry, P. M. 147
Paulin, C. H. 381
Paulson, Joseph 108, 183
*Penny, Prudence (Mrs. Charles) 380
Peters, Clifton 70
Petersen, O. W. 381
Peterson, E. V. 303
Peterson, S. W. 381
*Pharis, LeRoy M. 466
Phinney, E. A. 467
Pike, H. Noel 466
Pine, P. P. 341
Plumb, Hylom T. *147, 467
Pontius, D. W. 340
Powell, E. B. 421
Powers, P. A. 420
Pratt, Chester C. *182
Proctor, Robert L. 31
Proebstel, D. W. 71, *340
Pulgar, Prof. Don Jose 109
Pulliam, J. P. 303
Quandt, William 421
Raber, W. F. 341
Randall, Harry D. 31, 183, 421, 467
Rea, Herbert T. 341
Rees, Anson H. *109
Reeves, Carl H. 31
Reid, H. I. 303
Remington, Earle 223
Rethschult, G. W. 341
Rewside, J. B. 302
Rice, Calvin W. 222
Rice, E. W. 222
Rimpau, A. E. 340
Ringwood, W. E. 303
Robertson, A. N. McI. 466
Robinson, Ray F. 467
Robley, R. R. 303
Rocke, John 380
Rockwell, B. C. 380
Rolph, Thomas W. 146
Rosenthal, Max 182
Rosseter, John 70
Rowley, B. E. 261
Royer, J. E. 30
Rudy, C. R. 147
Rugg, W. S. 303
Russell, George F. 31
Ryan, Prof. Harris J. *222
Ryan, W. D'Arcy 71
Sachse, Richard 108
Sanderson, H. E. 381
Saurman, A. B. 147
Scanlon, M. W. *146
Scattergood, E. F. 146
Schroyer, J. L. 108
Schultz, Col. Edward H. 182
Schwerin, R. P. 420
Scofield, Frank A. 71
Scott, E. A. 340
Sears, W. C. 420
Seaver, Walter H. 146, 420
Seep, A. H. 261, 381
Semrad, C. A. 381
Sessions, Harry 260
Sharpe, Edward H. 303
Sheba, Oliver 147
Sherman, E. A. 147
Shreve, E. O. 70
Shroyer, D. E. 380
Shute, H. D. 147, 421
Sibley, Robert 421
Size, Mires F. 223
Skinner, C. E. 222, 302
Smith, J. Waldo 108
Smith, Thomas F. 421
Soderberg, C. P. 302
Spoden, H. C. 302
Sprunt, J. P., Jr. 146
Stannard, Clare N. 108, 182, 381, 420
Stech, Charles C. 71
Steel, Miles 31
Stetson, Clarence C. 222
Sterne, W. C. 467
Stewart, E. D. 146
Stone, E. F. 380, 421
Stoner, H. L. 302
Stoutner, Warren 466
Strange, J. E. 260
Stubbs, O. B. 381
Sturgeon, D. D. 467
Swope, Gerard 146
Talbert, Wilford 71
Talbot, Guy W. 30, 260

Page

*Personals—(Concluded)
Tanaka, K. ... 30
Taylor, H. Birchard ... 147
Thebo, Fenwick M. ... 70
Thomas, Edward C. ... 303
Thompson, A. V. ... 421
Thompson, George M. ... 183
Titus, H. D. ... 108
Tolman, R. C. ... 420
Treat, Robert ... 421
Trimble, K. W. ... 302
Tripp, Walter ... 30
Tubby, Charles W. ... 261
Tupper, Frank B. ... 182
Turley, L. J. ... 340
Turrentine, Dr. J. W. ... 70
Valk, E. E. ... 146
Van Gilluwe, Frank ... 71
Van Kuran, K. E. ... 31, 71, 302, 340, 380, 421, 466
Vanzwell, H. B. ... 421
Varney, Theodore ... 302
Vauclain, Samuel M. ... 109
Veatch, J. S. ... 380
Von Phul, William ... 71
Waage, Theodore ... 223
Waddington, E. H. ... 49, 70
Walker, H. H. ... 302, 466
Wallace, J. H. ... 420
Wallace, L. W. ... 341
Waters, H. B. ... 222
Watts, B. C. ... 222
Webb, Frank E. ... 303
Weeks, H. G. ... 466
Weymouth, F. W. ... 146
Wheatlake, B. C. J. ... 31
Whittlesey, F. R. ... 71
Widtsoe, Dr. John A. ... 222
Wilcox, Delos F. ... 340
Wilcox, E. A. ... 30
Wilcox, W. R. B. ... 302
Will, C. M. ... 381
Williamson, R. B. ... 466
*Wilson, Paul B. ... 467
Winner, W. L. ... 341
Winterer, H. K. ... 303, 421
Witt, W. H. ... 182
Wolfin, H. M. ... 109
Wolfe, Saling H. ... 261
Wood, L. A. S. ... 381
Woodill, H. B. ... 109
*Woodward, F. H. ... 420
Woolley, Ralf R. ... 302
Worth, Roy ... 31
Young, Garnett ... 146, 303
Personnel Relations in Industry—Commends Article on—by W. H. Crawford ... 121
Peru Exempts Materials for Public Utility Cons. Work ... 67
Photo Contest, Service, Winners ... 297
*Picnic, Seattle Electric Club ... 141
†Pioneers and the Cautious Wise Men, Fable of Hardy ... 430
*Pioneers' Day, S. F. Elec. League Holds ... 378
*Pit River—Insuring California's Industrial and Agricultural Growth—by Norman S. Gallison ... 123
Pit River—
No. 1 Plant to Open Sept. 30 ... 216
World's Largest High Tension Switches ... 220
†Pit River Development—What It Means to the West ... 115
*Pit River Development Visited by Cal. Editors ... 68
*Pit River Plant No. 1 Opened by P. G. & E. Co. ... 296
†Placing House Numbers on Curb Is Found Successful ... 192
Plan to Lessen Restrictions on Seattle Building ... 258
Plans Complete for Cal. Contr.-Dealers' Meeting ... 107
*Plans Maturing for Rocky Mountain Exposition ... 104
Plea for Self-Interest Argument in Opposition to Power Bill—by B. F. Jakobsen ... 159
Poet, Elec., Discovered in Vancouver Co. ... 373
Poindexter's Bill Passes Senate ... 140
Point Grey, B. C., Will Install Elec. Light Plant ... 296
Polson Site, Montana Power Co. Will Develop ... 258
*Portable Power Plant Developed for Oil Well Pumping ... 211
Porterville Asks to Acquire Distrib. System of So. Cal. Ed. Co. ... 415
Portland, Ore.—
A. A. E. Convention, 1925 ... 27
A. I. E. E. and N. E. L. A. Active ... 259
A. I. E. E. & N. E. L. A. Meeting Addressed by N. F. Coleman ... 419
Baking Co. Orders Electric Trucks ... 417
Chamber of Commerce Adopts State Development Plan ... 353
Chamber of Commerce Plans Broadcasting Set ... 339
Edison Co. Introduces Range ... 141
Engineers Announce Meetings ... 339
Firm Receives Record Order for Logging Machinery ... 26
Members Favor Daylight Saving Plan ... 64
Northwestern Elec. Co. Expansion ... 374

Page

Portland, Ore.—(Continued)
N. Wn. Elec. Co. Gets Permit for Lewis River Project ... 26
Oak Grove Contract Awarded ... 334
Pacific Pwr. & Lt. Co. Lets Contract for Hydro Plant ... 25
Port of Portland Installs Motor Driven Booster Pump ... 335
Power Co. Asks Prelimin. Permit ... 257
Shipyard to Build Lumber Schooner ... 26
Sperry Flour Co. Acquires Mill ... 301
To Vote on 1925 Fair Tax ... 28
†Western Exposition, 1925 ... 2
Woolen Mills Gets Ford Contract ... 28
Portland Beaver Cement Co. Plans Development ... 335
Portland Co. Plans Plant and Line Extensions ... 460
Portland Gas & Coke Co. Expenditures ... 460
Portland Ry., Lt. & Power Co.—
Clackamas River Project Starts ... 301
*Oak Grove Project ... 198
Oak Grove Project Approved ... 24
To Have Highest Head Turbine ... 414
Will Build Steam Plant at Salem ... 28
Portland Woolen Mills Co. Gets Ford Contract ... 28
Possibilities of Elec. Heating Advocated by Western Manufacturer—by T. D. MacMullen ... 121
Potash, Domestic, Bounty to Encourage Production ... 25
*Power, Flexible Source of, Reduces Cost of Labor ... 20
Power, Surplus, to Be Sold at Low Rate, Seattle ... 67
Power Co. Authorized to Operate in Idaho ... 104
Power Company Complaints—by C. B. Merrick ... 167
Power Co. to Sell Current to West Vancouver ... 376
†Power Co. Construction Program Anticipates Future Growth ... 268
Power Co. Supervision of Elec. Features of Pump. Installations—by A. M. Frost ... 196
Power Co. Wireless System Planned in Japan ... 393
Power Cos., Washington, Appropriate Water ... 463
*Power Companies Give Adequate Service, Do? ... 277
Power Expenditures, Economic Factors Which Determine—by L. J. Moore ... 91
Power Factor, Effects of Low ... 364
Power Offer, Cities Refuse ... 178
Power Not to Be Sold Wholesale to Power Co., Don Pedro ... 64
Power on Farm Is Display at Calif. State Fair ... 258
Power Permits Requested From Federal Comm. ... 417
Power Petitions Pending Before Federal Commission ... 460
*Power Plant, Portable, Developed for Oil tice of Not Taxing ... 351
Well Pumping ... 211
†Power Plants, Municipally Owned, Injus-
†Power Plants, Unified Cost Accounting for Privately Owned and Munic. Owned ... 350
Power Possibilities of Green River Surveyed ... 68
Power Project Permits Issued, Deschutes River ... 335
*Power Room, Getting the Most Effective Service From Your—by Claude C. Brown ... 14
Power Sites in Japan, Survey Shows ... 232
*Power Station Intercommunication, Radio Telephone for—by R. C. Denny ... 244
†Practical Socialism ... 309
Precautionary Measures Protect Against Static Electricity ... 136
†Price—or Adequate Service? ... 191
Principles of Electrical Engineering—Book Review ... 220
Principles of Mechanical Refrigeration—Book Review ... 258
†Principles of Rate Fixing, The ... 39
†Problems, Sectional, Still to Be Considered ... 117
†Problems in Long Distance Transmission, Three Outstanding ... 269
†Problems in Marketing Western Mining Products ... 41
†Prof. Ryan to Have No Opponent in Coming A. I. E. E. Elections ... 310
†Profit Is a Factor Which Cannot Be Eliminated From Industry ... 391
Program for Contr.-Dealer Convention, Santa Cruz ... 145
Progress Made in Boring Kilauea Crater ... 218
Propose National Hydraulic Laboratory ... 157
Proposed Act Would Relieve Elec. Rys. ... 195
Proposed Bridge Over Carquinez Straits Protested at Hearing ... 68
†Prosperity, On the Threshold of ... 229
Protest Against Increase in Express Rates ... 353
†Public—To Do as We Say and Not as We Do? ... 390
*Public Relations Theme of Northwest Convention at Boise ... 16

Page

*Public Servants, 35,000 ... 273
†Public Trust, Depreciation Funds as ... 3
Public Utilities—Wisconsin Ruling Important to ... 119
Public Utilities Must Use Steel Poles, Sale Lake City ... 216
Public Utility Construction Work, Peru Exempts Materials for ... 67
Public Utility Rate Contracts Discussed by Commission ... 461
†Publication Service Extension, S. E. D. ... 310
Pueblo, Colo.—
Contr.-Dealers Form Assn. ... 379
New Flood Protection Plan ... 417
Puget Sound Lumber Mills, Wage Increases ... 5
Puget Sound Power & Light Co.—
Constructing 110,000-Volt Line ... 67
*Vacation Camp, Lake Kirkley ... 142
Puget Sound Navy Yard to Have Sea Wall ... 24
Pulp and Paper Mill, B. C. ... 301
Pump, Motor Driven Booster, Installed at Portland ... 335
*Pumping, Oil Well, Portable Power Plant Developed for ... 211
Pumping Installations, Supervision by Pwr. Co. of Elec. Features—by A. M. Frost ... 196
Pumps, Receiver Type, Conserve Heat in Sugar Mill ... 173
Purchasing Agents' Day Held by San Diego Electric Club ... 378
*Purpose and Problems of 220,000-Volt Transmission—by J. P. Jollyman ... 131
†Putting Electrical Merchandising on Its Proper Plane ... 154
Putting Good Enoughs in the Grease—by Joe Osier ... 251

Q

Quarry and Tramway Illumination for Night Production ... 406

R

Radio, Commerce Bureau Extends Service by ... 312
Radio, How to Retail—Book Review ... 300
†Radio, Regulations Hampering Use by Power Companies ... 230
Radio Bureau Is Organized by L. A. Jobbers ... 419
Radio Business, Is There a Future for the Dealer in?—by Tracy Bibbins ... 93
Radio Co. Erecting Factory, Salt Lake ... 68
Radio Dealers, Denver, Meet at Conference ... 419
Radio Effects Speedy Rescue in Ship Disaster ... 312
*Radio Enthusiasm—Seattle Show Capitalizes on ... 21
*Radio Equipment ... 333
Radio Equipment Standardization Purpose of Conference ... 465
Radio Installations—S. F. Will Govern ... 415
Radio Jobbers, Denver, Unite to Form New Assn. ... 379
Radio on So. Pac. Train Sets News Records ... 28
Radio Station, World's Largest, to Be Constructed in China ... 258
*Radio Telephone for Power Station Intercommunication—by R. C. Denny ... 244
*Radio Telephones, Use by Western Power Companies—by R. C. Denny ... 317
Radio Telephony, Elements of—Book Review ... 258
Radio Trades Assn., Washington, Meeting ... 144
Radiophone, White Salmon, Wash. ... 27
Radiophone Broadcasting Station, Telegraph Hill, S. F. ... 334
Railroad, Alaskan, Makes Prospecting Easy ... 140
Railroad, Electrified, Seeks Recognition from I. C. C. ... 338
Railroad, Government, Sale ... 66
Railroad, Ore. Short Line, Will Build Secondary Main Line ... 463
Railroad Bet. Silverton & Auray, Colo., to Be Abandoned ... 334
Railroad Commission, Cal., Makes Important Ruling ... 105
Railroad Commission, Calif. State, Gives Approval to Land Deeds ... 300
Railroad Commission Prepares New Map of California ... 141
Railroad Electrification, Swiss ... 440
Railroad to Build New Terminal Facilities, Salt Lake City ... 219
Railroad to Utah Mines, New ... 140
Railroads, California, Lose Protest Against King Tax Bill ... 64
Railroads, Log Shippers Win Important Case Against ... 313
Railroads, S. P.-C. P. Dismemberment ... 312
Railroads, U. S., Most Efficient in the World ... 392
†Railroads, Western, Unmerging of ... 78

Page

Railway, Canadian, N. Y. Syndicate Makes Bid 460
Railway Electrification, Chile 88
Railway Electrification in the West, Interview With W. S. Murray—by Robt. Sibley 393
Railway in Southwest, Permit Requested 461
Railways, Elec., Proposed Act Would Relieve 195
Railways, Street, Tacoma, Pass System.. 140
Railways, Street, Tax Decision, Seattle Problem 66
†Range, Electric, Costs Justified 2
Range, Elec., Introduced to N. W. Dealers 141
Rate, Special, for Elec. Furnace Denied by Utah Commission 64
Rate Contracts, Public Utility, Discussed by Commission 461
†Rate Fixing, Principles of 39
Rate Reductions, Water, on Steel Feature of Rate War 64
Rate Reductions Save Californians Twenty Millions a Year 254
Rates, Electric, Lower, Vancouver, B. C. 415
Rates, Express, Protest Against Increase 353
†Rates, Need for Simplified 389
Receiver Type Pumps Conserve Heat in Sugar Mill 173
Reconstruction Plan Undertaken by San Diego Railway 298
Record Time, Transmission Line Erected in, Oregon 270
Reduction of Municipal Lighting Rates, Seattle, by 1923 219
Reductions Save Californians Twenty Millions a Year 254
Reedsport Light & Power Co. Sold 300
Refinancing Plan Announced 102
Reforest Burned Lands, Government to.... 43
Refrigeration, Mechanical, Principles of —Book Review 258
Regular Exchange of Engineering Students Between Cal. and Sweden—by Ivar Herlitz 83
†Regulations Hampering Use of Radio by Power Companies 230
*Reid-Farley Elec. Co., Fullerton, Cal..... 214
Relation of the Chain Store to Manufacturer and Retailer—by E. A. Kincaid.. 206
*Remotely Controlled Generating Stations —by A. T. Parsons 203
Reno P., L. & W. Co. and Truckee River G. E. Co. Consolidation 66
*Repair Dept. Modernized by Fresno Co.... 328
†Repair Work, Encouraging Home 155
Repairs, Appliance, Denver Store Gives Labor Free 177
Request Permit for Electric Railway in Southwest 461
Rest-room, Electrical, Calif. Town Features 177
*Restaurant, Electricity for Broiling and Roasting in the Modern 367
Restrictions on Seattle Building, Plan to Lessen 258
†Results of Colorado Conference Vital to Western Development 391
Retail Location for Farm Light Dealer—by John T. Bartlett 61
Retail Sales Problems, Why Manufacturer Is Interested—by E. A. Kincaid..... 54
Retailing of Electrical Merchandise—W. L. Goodwin Presents Views 434
Returns by Counties on Water and Power Act 414
Right of Los Angeles to Condemn Power Site Denied 374
Rights of Downstream Users on Interstate Rivers Sustained—by Paul Wooton 53
Rio Grande Project to Be Started 463
Rivers, Interstate, Rights of Downstream Users Sustained—by Paul Wooton..... 53
Road Statistics, Interesting 43
*Road Will Aid Power Development 319
Rockton Lumber Co. Incorporates 297
Rocky Mountain Elec. Coop. League—Sponsors Salt Lake Elec. Home.....138, 139
*Rocky Mountain Division, N. E. L. A., Convention, Glenwood Springs 256
*Rocky Mountain Exposition Plans Maturing 104
Rocky Mountain League New Officers..... 419
Rocky Mountain N. E. L. A. Meeting, Glenwood Springs 145
Roebling's Sons Co. Employees to Receive Insurance 297
Rolling Mills Operated by Government, Japan 106
Ruling Important to Public Utilities, Wisconsin 119
Rural Credits, New Banks Will Stabilize.. 4
Rural Districts, Utah Power Co. Extending Lines Into 180
Rural Line Extensions—Ore. Changes Policy 338
†Rural Lines, Need of Accurate Knowledge on Financing 431
*Rural Road, Building a—by W. M. Shepard 397
Ryan, Harris J., Suggested as A. I. E. E. Head 145

Page

†Ryan, Prof., to Have No Opponent in Coming A. I. E. E. Elections 310

S

S. E. D.—
Assoc. Island Convention.....†231, 301
Issues Call for Fall Conference of Elec. Coop. Leagues 66
*Issues Monograph 106
Issuing Sales Letter Service 101
†Joint Committee 230
Prepares Xmas Sales Aids 368
†Publication Service Extension 310
*Publish Elec. Home Booklet 328
Will Issue New Booklet on Electrical Homes 28
Sacramento, Calif.—
*Early Cal. History Depicted 62
Safety, Personal, Promoted by Effective Warning Signal 19
Safford Light & Power Co. Enlarging Plant 415
Salem, Ore.—
Aux. Steam Plant Will Be Built 28
Bend Water, L. & P. Co. Applies for Water Permit 376
Paper Mill Unit Will Be Added 254
Sales—June Bride Week Improves 61
Sales Agencies, Exclusive, Modern Use of by Manufacturers—by E. A. Kincaid.... 246
Sales Aids, Elec. Soc. Prepares Xmas..... 368
Sales Letter Service, S. E. D. 101
Sales Letters, Denver Jobber Uses to Excellent Advantage 21
Sales Problems, Retail, Why Manufacturer Is Interested—by E. A. Kincaid..... 54
Salt Lake City, Utah—
A. A. E. Annual Convention 29
Commercial Club's Industrial Dept... 142
Contr.-Dealers Reorganize.....69, 339
*Elec. Exposition 336
*Elec. Home Successful, Second....138, 139
*Exposition Plans Nearing Completion 218
Get-Together Meeting Held, Elec. Coop. League 419
*Holds Annual Elec. Cooking School.... 175
*Installs Large Electric Bake Oven..... 26
No. 2 Elec. Home Opened 105
Public Utilities Must Use Steel Poles 216
Radio Co. Erecting Factory 68
R. R. to Build New Terminals 219
Second Elec. Home Planned 68
Utah Court Upholds Tax 68
Washing Machine Scrubs Money..... 21
Salt Lake Is Scene of Large Electrical Exposition—by M. L. Cummings, Jr..... 336
Salt River Valley Water Users' Assn. Pwr. Dev. Reported on Favorably..... 220
Salvage Dept. Saves Firm Thousands of Dollars 174
San Diego, Calif.—
Electric Club Holds Pur. Agts.' Day 378
Warner Dam Contract Signed 464
San Diego Electric Railway Co.—
Plans Reconstruction 298
R. R. Comm. Rules on Discontinuance of Service 313
San Francisco, Calif.—
*Central Fire Alarm Station 257
Civil Engineers Hold Meeting 221
Elec. Industry Gives Get-Together Dinner 221
*Elec. League Holds Pioneers' Day..... 378
Engineer Invents X-ray Meas. Device 460
Engineering Service Bureau Plans..... 142
Engineers' Club Celebration 379
Heavy Appliance Display Held 377
*Many New Homes Electrified 140
*Moves for Industrial Peace—by Warren H. McBryde 237
Telegraph Hill Radio Station 334
Will Govern Radio Installations..... 415
*San Francisco Bay Terminal Plan, Government Hearing 27
San Francisquito Plant to Be Enlarged.. 107
San Gorgonio Co. to Install Hydroelec. Plants 254
San Joaquin Light & Power Corp.—
Eighty-Mile Transmission Line Being Constructed 417
*Ten-Story Office Bldg..... 416
To Erect Ten-Story Bldg..... 297
*Sardines Do Not Come in Cans, All..... 294
Sawmill to Be Completely Electrified, Springfield, Ore. 464
Saxaphone Band of Light Co. Provides Programs, Denver 301
*School Buildings, Electrical Equipping for 390
*Scrap Iron and Steel, Use of by Western Industry 250
Sea Wall at Puget Sound Navy Yard..... 24
Seattle, Wash.—
Agutter & Co. Opens Model Store..... 61
*Cargo Conveyor Developed 98
*Cascade Fixt. Co. Moves 66
*Dealer Finds Modern Store Business Asset 295
Decorated for Xmas Holidays 375
Elec. Club Celebrates Elec. Week..... 181

Page

Seattle, Wash.—(Continued)
Electric Club Elects Officers 221
*Electric Club Picnic 141
Elec. Club Promoting Elec. Idea—by J. J. Agutter 120
Elec. Homes—Two Simultaneously..... 457
Elec. Week Plans Nearing Completion 217
Electrification of Great Northern Announced 24
Faces Problem in Recent Street Ry. Tax Decision 66
†Hocus Pocus Doesn't Work 311
Lumber Mill to Be Electrified 264
Mayor Proclaims Elec. Week 233
Pacific N. W. Merchants' Convention Planned 69
Plan to Lessen Restrictions on Building 258
Reduction of Municipal Lighting..... 219
*Show Capitalizes on Radio Enthusiasm 21
Skagit River Dev., First Unit Completed Dec., 1923 300
Surplus Power to Be Sold to Industries at Low Rate 67
Two Elec. Homes During Sept..... 141
Will Reduce Its Power Purchases..... 257
Seattle Club Holds Banquet on Board Coastwise Vessel 465
Seattle Club Shows Two Homes Simultaneously 457
Seattle Company Takes Over Two Northwest Power Companies 102
Seattle Electric Club Holds Banquet on S. S. 465
Second Elec. Home, Salt Lake City, Planned 68
†Sectional Problems Still to Be Considered 117
Self-Interest Argument in Opposition to Power Bill—by B. F. Jakobsen..... 159
Senate Passes Tariff Amendment to Adopt Free Trade Zones 217
Senator Poindexter's Bill Passes..... 140
†Service—Price or Adequate? 191
*Service, Do Power Companies Give Adequate? 277
*Service—Electrical Manufacturer's Point of View 283
*Service, Electrical, Contr.-Dealer's Contribution to 287
*Service, Jobber's, Electrical 285
Service Photo Contest, Winners 297
*Service That Builds Business—by J. E. Bullard 402
*Service to Industry, Electricity's—by Louis F. Leurey 290
†Service to the Public—the Ultimate Destiny of the Industry 116
Shelley Light & Power Co. Purchased by Utah P. & L. Co. 68
"Shingle, No" Legislation in Calif..... 81
Ship Disaster, Radio Effects Speedy Rescue 312
†Should the Public Be Expected to Do as We Say and Not as We Do? 390
*Show, Trade, Have a Show of Your Own After 251
*Show Window Illumination Business..... 99
†Sign, Highway—Tax as Well as Exclude It From Right-of-Way 268
Signal, Warning, Personal Safety Promoted by Effective 19
†Signing of Compact First Step in Development of Colorado River 430
Silverton Ry. Co. to Abandon Railroad.... 334
†Simplified Rates, Need for 389
Six Place Tables—Book Review 464
Skagit River Power Development, First Unit Completed, Dec., 1923 300
Skin a Day, A—by Joe Osier 369
Snake River Project, Idaho, Irrigationists Seek Permit for 27
Snow Mountain Water & Power Co. Files Application for Development 258
†Socialism, Practical 309
†Socialistic Amendment, Death Knell Is Sounded 192
Society for Electrical Development (see S. E. D.)
*Society Issues Interesting Book on Elec. Homes, S. E. D. 106
†Solidarity in Natl. Eng. Soc. Develop..... 269
Some Business Getting Ideas From So. Calif. 175
†Some Observations on Golf and Luncheon Clubs 155
Some of the Major Reasons Why Employees Quit Their Jobs—by Geo. H. DeKay, Jr. 89
†Some Problems in Marketing Western Mining Products 41
Sources From Which Labor May Be Recruited—by Geo. H. DeKay 209
*Southern and Central Pacific Dissolution 4
Southern Calif. Edison Co.—
*Automobile Location System—by P. H. Ducker 243
*Forest Trees-Tunnel 236
*Motors for Big Creek 65
Porterville Asks to Acquire Distributing System 415

Page

Southern California Edison Co.—(Continued)
Has Record Number of Stockholders 80
Refinancing Plan Announced 102
*Winter Crews to Receive Orders by Wireless 255
Southern Idaho Convention Postponed 69
Southern Pacific-Central Pacific Controversy 118
Southern Pacific-Central Pacific Dismemberment 312
Southern Pacific to Spend Thirty Millions 216
Southern Pacific Train Radio Record 28
Sperry Flour Co. Acquired Large Portland Mill 301
Spokane, Wash.—
Ad Convention, 1923 69
Home Electrical Finished July 12 27
*Model Elec. Home—by R. B. McElroy 199
†Spread of the Electrical Home Idea Is Evidence of Its Value 430
Springfield, Ore., Sawmill to Be Completely Electrified 464
Spruce Cargo Shipped From Alaska to N. Y. 257
Staley System of Elec. Rys. Seeks Recognition From I. C. C. 338
Standard Handbook for Elec. Engrs.—Review 300
Standby Boiler Service, Electricity Removes Necessity of 60
*Start Your Christmas Selling Early—by Thos. F. Chantler 357
State Commission Ruling Delays Modesto Bond Issue 334
States Co. Announces Autom. Series Cutout 333
Static Electricity—Precautionary Measures Protect Against 136
Stave Lake Plant Started 28
Stave Lake Plant, Fourth Unit Being Installed 335
Steam-Engine Principles and Practice—Book Review 418
Steam Plant, Auxiliary, Will Be Built at Salem, Ore. 28
Steel, Rate Reductions Feature of Rate War 64
Steel Industry, Basic, Planned for West 42
Steel Industry for West Seems Assured 195
Steel Poles, Public Utilities Must Use, Salt Lake City 216
Stock Merger, Washington Cos. 461
Stockholders, Utility Has Record Number 80
Stockton, Calif.—
*Western Pac. Development 217
Stone, Ellery, Visits Pacific States Elec. Co. Branches 331
*Store, Modern, Business Asset, Seattle 295
*Store, Residential, Largest in Denver 213
*Store Location, Choosing the Most Advantageous—by Irving B. Lincoln 23
†Straws Show Which Way the Wind Blows 1
*Street and Highway Lighting Exhibit Shows City Possibilities in Adequate Illumination—by J. R. Colville 44
†Street Car Lines, Seattle—Hocus Pocus Doesn't Work 311
Street Lighting Circuits, States Co. Announces Autom. Series Cutout for 333
Street Railways, Tacoma, Pass System 140
Street Ry. Tax Decision, Seattle, Problem 66
Students, Engineering, Regular Exchange Between Cal. and Sweden—by I. Herlitz 83
†Students, Exchange Between Sweden and Pacific Coast 78
Substitution, Autom., Vancouver, B. C. 462
Substitution of Grease for Oil Produces Annual Saving 19
*Suburban Dealer Can Compete With City Store 214
Successful Convention Held by Southern Idaho Men 259
Successful Dinner Sponsored by S. F. Electrical Industry 221
Sugar Companies' Amalgamation 81
Sugar Mill, Receiver Type Pumps Conserve Heat 173
*Sugar Refining, Chemical Testing Important 98
Suggestions Made That More Attention Be Given Elec. Bldg. Heating—by A. Strauch 121
*Suggestions for More and Better Business, A Few 176
Super-Power Vacuum Tube Is Developed 352
Supervision by Pwr. Co. of Elec. Features of Pump. Installations—by A. M. Frost 196
Supply Jobbers Make Plans to Stabilize Industry 465
Survey of Power Possibilities of Green River Under Way 68
Survey Shows Available Power Sites in Japan 232
Sweden, Exchange of Engineering Students Between Cal. and—by I. Herlitz 83
†Sweden and Pacific Coast, Exchange Students Between 78
Swendsen, W. G., Approves Boise Valley District 143
Swiss Railroad Electrification 440

Page

Switches, World's Largest High Tension, Pit River 220
Sychronous Motors Reduce Line Losses 366

T

Tacoma, Wash.—
Electrical Club Meeting 220
*Electrical Exposition Merchandising Aid 332
Farm Bureau Supports in Fight to Sell Power 180
New Elec. Club Organized 180
Planning Second Annual Elec. Exposition 178
Street Ry. Pass System 140
Wins Suit for Lake Cushman Power Site 339
Tacoma-Lake Cushman Project Goes to Court for Settlement 140
*Taking the Electric Home Owner Into Partnership 453
†Tangle in Accounting Straightened Out, A 78
Tariff Amendment to Adopt Free Trade Zones 217
Tax Constitutionality Upheld by Court, Utah 68
†Tax the Highway Sign as Well as Exclude It From Right-of-Way 268
†Taxes, A Chance to Vote for Higher 79
*Taxes, Municipal—Are We Getting Adequate Return for—by Wm. H. Nanry 56
†Taxing Municipally Owned Power Plants, Injustice of Not 351
†Teamwork, Everlastin' 268
Telegraph Hill Station to Aid Western Business Men 334
*Telephone, Radio, for Power Station Intercommunication—by R. C. Denny 244
Telephone Subscribers Continue Use of Telechronometers, Everett, Wash. 145
*Telephones, Radio, Use by Western Power Companies—by R. C. Denny 317
Telling the Elec. Home Story in a New Way—by S. W. Bishop 101
Ten Model Homes Opened in Oakland 313
*Ten-Story Office Building for Fresno Power Co. 416
Tenth Anniversary Celebrated by S. F. Engineers' Club 379
Testing, Chemical, Important in Sugar Refining 98
†Tetrachloride, Carbon, for Extinguishing Electrical Fires 117
*Then and Now—by K. L. Graham and R. S. Prussia 163
*There Is Business in Show Window Illumination 99
Third Unit Will Be Added to Salem, Ore., Paper Mill 254
*There Is No Such Thing as "Cheap Competition"—by E. S. Conrad 372
Thirty Millions to Be Spent by So. Pac. 216
*Thirty-five Thousand Public Servants—by Robert Sibley 273
Three Methods of Manufacturer to Consumer Merchandising—by E. A. Kincaid 94
†Three Outstanding Problems in Long Distance Transmission 269
†Threshold of Prosperity, On the 229
Timber, Fallen, to Be Salvaged by Sale of Government R. R. 66
Timber Co., Weyerhauser, Announces Gift to State 68
Timber for Sale by Forest Service 257
Timber to Be Sold to Highest Bidder, Lake Quinault 297
To Draw Up Final Agreement for Use of Colorado River 374
To Erect Hydroelec. Plant at Buffalo Rapids 216
*Torque, High Starting, Essential for Motor Drive 60
Tow, Universal, for Window Display—by Harold Cary 361
Trade Outlook 305, 343, 383, 423, 469
*Trade Show, Have a Show of Your Own After 251
Trade Zones, Free, Senate Passes Tariff Amendment to Adopt 217
Trade Standards in the Pump Industry 300
*Training, Vocational, for Colo. Mine and Steel Workers—by Edw. S. Cowdrick 171
†Transmission, High Voltage, New Economic Triumph in Development 269
†Transmission, Long Distance, Three Outstanding Problems 269
*Transmission, 220,000-Volt, Purpose and Problems of—by J. P. Jollyman 131
Transmission Line, 80 Miles Being Constructed—San Joaquin Corp. 417
Transmission Line, Utah Co. Constructing 374
Transmission Line Construction in N. W. Large This Year 257
Transmission Line Erected in Record Time 270
Transmission Line Nearing Completion, Ore. 334
Trinity River Project, Amended Application Filed 335
†Truck, Electric, as a Western Possibility 79
*Truck, Electric, Long Life and Low Upkeep Makes Good Investment 450
Truck, Electric, Proves Its Utility 366
Truckee River G. E. Co. and Reno P., L. & W. Co. Consolidation 66
Trucks, Electric, Portland Baking Co. Orders 417
Tube, Super-Power Vacuum, Is Developed 352
Tucson, Ariz.—
Election on Franchise to Oper. Street Railway 419
Tunnel Contract Let, Columbia Steel Corp. 254
Tunnel Law, Moffat, Upheld by Colo. Supreme Court 460
Turbine, Ore. Co. to Have Highest Head 414
Turlock Advised to Distribute Own Power 296
Turlock Irrig. District Asks Price on P. G. & E. Lines 178
Twelfth Federal Reserve District Conditions 106
Two Organizations Oppose Water and Power Amendment 29
Two Permits for Power Projects on Deschutes River Issued 335
†Two Years' Operation Under the Federal Water Power Act 116
*Types and Costs of Dams Shown by Small Concrete Models 28

U

U. S. Bureau of Foreign and Domestic Commerce, S. F., Radio Service 312
U. S. Geological Survey Reports Mining Revival 81
U. S. Railroads Most Efficient in the World 392
*U. S. Motors Will Have New Home in L. A. 105
U. S. Reclamation Service Engineer Investigates Utah Rivers 297
U. S. Reclamation Service Office to Remain in Denver 24
Underground Water Supply Found by Idaho Irrigationists 141
Underwriters Laboratories, Inc., Establish S. F. Branch 80
†Unified Cost Accounting for Privately Owned and Municipally Owned Power Plants 350
Uniform Accounting Adapted by Idaho Utilities Commission 64
†Uniform System of Accounting for Electric Utilities 117
University of California—New Heat Power Laboratory 255
Union Pac. R. R. to Build Hotels in Utah 339
*Universal Toy for Window Display, The—by Harold Cary 361
University of New Mexico Will Have Illuminated U. 300
University of Utah A. A. E. Campaign for Membership 339
†Unmerging of Western Railroads, The 78
Unscrupulous Competitors to Educate Your Customers, Are You Allowing?—by E. S. Conrad 158
†Use of Carbon Tetrachloride for Extinguishing Electrical Fires 117
Use Diamond Drill to Determine Character of Base Rock 416
*Use of Radio Telephones by Western Power Companies—by R. C. Denny 317
*Use of Scrap Iron and Steel by Western Industry 250
*Using Contrast to Advantage in Window Displays 253
Utah—
Cave Is Electrically Lighted 26
Coal Freight Rates to San Joaquin Valley Reduced 258
Columbia Steel Corp. Tunnel Contract Let 254
Commission Denies Special Rate for Elec. Furnace 64
Contractors and Dealers Reorganize, Sale Lake City 339
Federal Engineer Inspects Irrig. Projects 181
Has Vast Hydroelectric Resources 67
Irrigation Congress Session 145
Mfg. Assn. Plans Opening of Development Campaign 69
Permit to Develop Sevier River Applied for 416
Utah Co. Is Constructing New Transmission Line 374
Utah Copper Co.'s Mill Reopened 464
Utah Mines, New Railroad to 140
Utah Power & Light Co.—
Constructing Transmission Line 374
Extending Lines Into Rural Districts 180
Files on Green River Project 143
Granted Development Permit 299
Purchases Property of Shelley L. & P. Co. 68
Utah Rivers Investigated by Reclamation Engineers 297
Utilities, Better Contact With Public Essential for 59
†Utilities, Few Industries Operate on as

Page

Narrow Margin as 430
†Utility Commission, Court Upholds Power in California Decision 310
†Utility Commissioners, Engineering Qualifications Not the Only Ones 390
Utility Has Record Number of Stockholders 80
Utility Rates, Lower, With Decreased Cost of Living Public Will Expect—by J. F. Greenawalt 45

V

*Vacation Camp Built for Central Station Employees, Lake Kirkley 142
Vacuum Tube, Super-Power, Is Developed 352
*Vacuum Tube Largest in World 377
*Valley Electrical Supply Co.—Repair Dept. Modernized 328
Valuation Case Is Before State R. R. Commission, P. G. & E. 333
Valuation Engineer Examination Announced by U. S. 107
Valuation Engineers Needed by Bureau of Internal Revenue 216
Vancouver, B. C.—
Assn. Formed by Small Resident Wiremen 219
Autom. Substation Erected 462
Calls for Tenders on Elec. Dock Equipment 219
Christmas Campaign Plans 379
Elec. Home Opened Sept. 1st 144
Marconi Co. Plans Station 415
Residents Will Get Lower Elec. Rates 415
Stave Lake Plant Fourth Unit Being Installed 335
Verdugo Hills Rancho Scene of Elec. Contr.-Dealers' Assn. Picnic, L. A. 339
Veronia, Ore.—
Franchise for Light and Power Presented to City Council 220
*Vocational Training for Colorado Mine and Steel Workers—by Edw. S. Cowdrick 171

W

Wage Increases in Puget Sound Lumber Mills 5
†Wanted—A Moses 77
Warner Dam Contract Signed 464
Washing Machine Scrubs Money in Salt Lake Store 21
Washington, D. C., Events, of Interest to Western Men..25, 65, 103, 179, 298, 338, 376
Washington Coast Utilities Co., Takes Over Power and Water Systems 102
Washington Lumber Exports Quadrupled in 1922 107
Washington Radio Trades Assn. Meeting.. 144
Washington's Open Shop Coal Mines 157
Washington Water Pr. Co. to Acquire Okanogan Valley Pwr. Co. 461
Waste, Construction, Consulting Engineers Prevent 249
†Waste, Economic, Attendant on Duplication of Electric Service 351
*Waste in Industry, Eliminating—by Louis F. Leurey 19, 59, 97, 135, 173, 211, 249
*Waste in Industry, Fighting Corrosion as a Major Source of—by R. H. Hubbell 9
*Waste Prevented by Using Electricity 212
Water and Power Act—
Chambers of Commerce Oppose 179
†Chance to Vote for Higher Taxes 79
Condemned at Gas Convention 259
Condemned by A. A. E., S. F. 259
Death Knell Sounded 192
Defeated by Calif. Voters 374
Election Returns by Counties 414
†Everything to Lose and Nothing to Gain 268
†Lesson of Controversy 350
Meets Opposition 194
N. E. L. A. Pres. Sees Menace 144
N. Y. Engr. Pres. Sees Menace 144
Ontario Rates Increased 233
Self-Interest Argument in Opposition —by B. F. Jakobsen 159
Subject of Am. Soc. C. E. Discussion 299
Two Organizations Oppose 29
†Water and Power Controversy, Lesson of 350
†Water Power Act, Federal, Two Years' Operation Under 116
Water Power Act Administration, Federal—by Paul Wooton 169
†Water Power Development—Encouragement and Assistance Needed 431
Water Power Report of Forestry Service Completed, Ogden 140
Water Power Subject of Engineers' Discussion 299
Water Rate Reductions on Steel Feature of Rate War 64
Water Resources Investigation Board Tours Counties of No. Calif. 257
Water Supply, Underground, Found by Idaho Irrigationists 141
Weather Change Improves N. W. Forest Fire Situation 68
Weekly Pass System Started by Tacoma Street Railways 140
Welch, Alvadore, Files Bankruptcy Petition 68
Wenatchee District to Be Served by New 110,000-Volt Line 67
Western Comment on Current Events 4, 42, 80, 118, 156, 194, 232
*Western Dealer, Jobber and Agent 21, 61, 99, 137, 175, 213, 251
Western Elec. Co., Portland Home 468
Western Engineer Suggested as A. I. E. E. Head 145
†Western Exposition in Portland, 1925 2
†Western Fishing Industry, Impending Failure 41
*Western Industry, Use of Scrap Iron and Steel by 250
Western Mills Prove Success of Elec. Logging 194
†Western Mining Products, Problems in Marketing 41
*Western Pacific R. R. Development, Stkn. 217
Western Possibility, Elec. Truck as a 79
†Western President for A. I. E. E. 155
†Western Railroads, Unmerging of 78
Westinghouse Gets Order From Wash. Paper Co. 144
Westinghouse Has New Home, L. A. 304
Weyerhauser Timber Co.'s Gift to State.... 68
What a Dime Will Do 205
*What Are Your Methods in Hiring Men for Business?—by Geo. H. DeKay, Jr... 12
†What the Pit River Development Means to the West 115
Wheel, Impulse, Experiments With New Design 219
†Wheel Design, Impulse, Experiments Indicate Improvements 193
When in Doubt—Let Henry Do It 4
White Salmon, Wash., Radiophone 27
White Sulphur Springs, Mont., Power Plant Taken Over 297
Wholesale Power Not to Be Sold by Irrigation District 464
Why the Manufacturer Is Interested in Retail Sales Problems—by E. A. Kincaid 54
Will Install World's Largest High Tension Switches, Pit River 220
Will Make Improvements to Ore. Power Plants, Yamhill Elec. Co. 297
Will Try to Increase Number of Elec. Homes 378
Willamette Iron & Steel Wks. Receives Record Order for Logging Machinery 26
*Window Display, Universal Toy for—by Harold Cary 361
Window Display and Advertising—by Joe Osier 139
*Window Displays, June Bride Week Brings Out Many 22
*Window Displays, Using Contrast to Advantage 253
Winners of Service Photo Contest 297
*Winter Crews to Receive Orders by Wireless 255
*Wireless, Winter Crews to Receive Orders by 255
Wireless May Be Used in Mine Rescues.... 392
Wireless System Planned in Japan 393
Wiremen, Small Residence, Form Assn., Vancouver, B. C. 219
Wiring, House, Sales Plan, Genl. Elec. Begins Natl. 177
Wisconsin Ruling Important to Public Utilities 119
With Decreased Cost of Living, the Public Will Now Expect Lower Utility Rates—by J. F. Greenawalt 45
Work of Federal Power Body Is Reviewed 270
Work Scheduled to Be Resumed on Boise-Payette Irrigation 103
World's Largest Radio Station to Be Constructed in China 258
Worthington Turbines, Olympia Co. Installs 461

X

X-Ray Meas. Device, S. F. Engr. Invents.. 460

Y

Yamhill County Mutual Telephone Co. Petition 25
Yamhill Elec Co. Will Make Improvements 297
Yaquina Electric Company Property Sold 178
Yarders and Loaders, Elec., Installed 66
Yawata, Japan, Rolling Mills Operated by Government 106
*Yosemite Valley, Elec. Cooking and Heating Appliances in—by P. H. Booth 82
*Yosemite Valley, Modern Elec. Conveniences in a Mountain Camp—by C. Mathews 447